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**Aggression replacement training in the community for adult
learning-disabled offenders**

Curulla, Virginia Latta, Ph.D.

University of Washington, 1991

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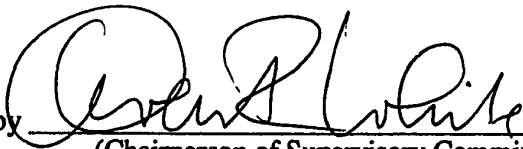
Aggression Replacement Training in the Community
for Adult Learning Disabled Offenders
by
Virginia Latta Curulla

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1991

Approved by 
(Chairperson of Supervisory Committee)

Program Authorized
to offer Degree College of Education

Date December 4, 1991

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Doctoral Dissertation

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Abstract

Aggression Replacement Training in the Community
for Adult Learning Disabled Offenders

by Virginia Latta Curulla

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Community based rehabilitation for offenders as an alternative to incarceration is gaining popularity not only because it is less expensive than incarceration but also because it may be more effective. However, offenders with learning disabilities may have unique needs which are not met in many community treatment programs. Such programs often rely upon a lecture format which is ill-suited for many learning disabled individuals, or otherwise do not respond to the communication styles and behavioral characteristics of persons with learning disabilities. Aggression Replacement Training (ART), on the other hand, incorporates teaching methods that have been found effective with the learning disabled. In this study, two groups of adult male misdemeanor offenders with learning disabilities participated in 14 weeks of ART for two hours weekly, utilizing different versions of ART. The dilemma group (n=16) received all three components, social skills training, anger management and moral education. The nondilemma group (n=18) received only the social skills training and anger management components, supplemented with additional skills training so that they spent the same total amount of program time as the first group. The control group (n=33) was made up of individuals who had been found appropriate for the program but did not receive it. Tendency towards recidivism and actual recidivism were compared among three groups (N=67). Tendency towards recidivism, as measured by the Weekly Activity Record, was significantly reduced in the dilemma group. The nondilemma and control groups showed no significant reduction.

The dilemma group also had the lowest frequency of subsequent offense. Among the 16 dilemma subjects, only one individual had charges on his record during the six month followup period. Five of the 18 nondilemma subjects and 8 of the 33 controls had district court charges during the same period. However, the difference in actual recidivism among the three groups did not reach statistical significance due to the low incidence of recorded charges during the six month followup. Community-based Aggression Replacement Training, when it includes the three components of social skills training, anger control and dilemma discussion, appears to have some potential for reducing recidivism in adult male learning disabled offenders.

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DEDICATION

This dissertation is dedicated to my husband, family, and friends, in appreciation for their support and interest through a long and arduous process.

Aggression Replacement Training in the Community
for Adult Learning Disabled Offenders

CHAPTER 1

The Need for Community Corrections for Learning Disabled Offenders

Newspaper headlines and correctional literature frequently call for alternatives to incarceration, particularly for less serious offenses (Duncan, D., 1987; Snarr, 1987; Wilson, 1983). Criminal sanctioning, by itself, is questioned as to its ability to deter further unlawful activity (Andrews, Bonta, & Hoge, 1990; Snarr, 1987). Jails, where short-term incarceration is common, generally provide little access to rehabilitation programs such as those provided in prisons. Where offered, programs aimed at developing prosocial behavior within the prison or jail suffer from a number of limitations imposed by the setting (Goldstein, Glick, Irwin, Pask-McCartney, & Rubama, 1989). Furthermore, prisons, jails and detention facilities are overcrowded and expensive, a financial burden on society, entirely aside from the cost of failure in human terms (Blumstein, 1983; Hill, 1988; Ruback, 1988; Snarr, 1987). Aside from incarceration, criminal sanctions available to district courts are fines and a limited number of programs, such as those for substance abuse, anger management, and consumer awareness. Community based intervention is much less expensive than incarceration. Most pertinent, community based intervention has been found more effective in reducing recidivism than other criminal sanctions in at least one meta-analysis (Andrews, et al., 1990). However, a broader range of community based alternatives is needed in order to respond to varied offender characteristics.

Both more serious infractions and relatively minor offenses, such as failing to license a vehicle properly, or not appearing in court after having received a citation, take a high toll in the law enforcement system. Citations and arrests involve not only the offender, but also policemen, court clerks, prosecutors, defenders, witnesses, probation

counselors, and judges. Moreover, certain individuals are in court or jail repeatedly (Forst, 1983; Herrnstein, 1983; Sherman, 1983). Even without incarceration, multiple charges or convictions are expensive to the individual in fines, court costs, fees for mandated program participation, and time away from work due to court appearances. Because most employers have little tolerance for employees who keep an irregular schedule due to court appearances and jail sentences, loss of employment may be another consequence of frequent court involvement. Offenders' families may be severely impacted when increased stress is placed on already dysfunctional relationships. Many court clients earn minimum wages, or are irregularly employed due to poor employment skills or deficient interpersonal skills. Anger management or impulsivity may be particular problems for these individuals.

The causes and/or consequences of unlawful behaviors affect certain offenders and/or their families disproportionately. Young adult learning disabled men, more often than might be expected, become entrapped in repeated encounters with the court system. Frequently they have left school without the competencies to deal successfully with job and community demands (Edgar & Levine, 1987). Individuals with learning disabilities may have information processing styles and behavioral patterns that substantially impact their daily interactions. Dysfunctional information processing and maladaptive behavior patterns also may impair their ability to successfully participate in those community programs that are available to the courts for alternative sentencing. Programs for alcohol education or treatment, anger management, and consumer awareness tend to draw heavily upon language processing skills, which often are deficient in the learning disabled offender. Also, such programs may have lecture formats that are ill-suited to the restlessness of the hyperactive learning disabled adult. Assigned reading or writing tasks may be one further occasion for feelings of inadequacy or humiliation, leading to program

noncompliance. Learning disabled offenders may have unique rehabilitation needs that often are not addressed in readily available community corrections systems or programs.

Initiation of the Alternative Sentencing Program

Over time, Judge David Admire, of the Northeast King County District Court in Redmond, Washington, had become concerned about the apparently high incidence of learning disabled offenders seen in his courtroom. He was frustrated by the high recidivism and the lack of community programs for adults with learning disabilities. Rehabilitation that addresses the needs of a specific offender population is thought to have a higher probability of success (Andrews, et al., 1990; Van Nagel, Foley, Dixon, & Kauffman, 1986; Warren, 1971). Judge Admire approached the Learning Disabilities Association of Washington (LDA) in seeking a solution to the lack of community services for learning disabled offenders.

The LDA committee that was formed to examine the issue of learning disabled offenders determined that development of personal interactional skills probably would be the most urgent need. Interpersonal conflict and frustration appeared likely to be more direct contributors to court involvement than difficulties with reading, writing, or math. Learning disabled children and adults frequently have been found to have particular difficulty with social interactions (Brown, 1980; Jackson, Enright, & Murdock, 1987; Johnson & Blalock, 1987; McCue, Katz, Goldstein, & Rudisin, no date; National Joint Committee on Learning Disabilities, 1987a & b; Whitmore & Maker, 1985).

The Aggression Replacement Training Program (ART, Goldstein, Glick, Reiner, Zimmerman, & Coultry, 1987) was identified as addressing both the common characteristics of offenders and the learning styles often found in individuals with learning disabilities (Andrews, et al., 1990; Rutter & Giller, 1984; Schumaker, Pederson, Hazel, & Meyen, 1983). In their review of social skills programs for use with mildly handicapped students, Schumaker, et al. found that Skillstreaming the Adolescent, a

social skills training program by Goldstein, A.P., Sprafkin, Gershaw and Klein (1980a), responded to the majority of the criteria that they believed were important in working with learning disabled individuals. ART is comprised of moral education and anger control, along with the social skills component described in Goldstein's manual for Skillstreaming the Adolescent.

ART's social skills and anger control components appear to have a solid foundation in research. However, the moral education or dilemma discussion component of ART provided an interesting research question. The ability of moral education to effect behavioral changes is much less well supported in the research literature than is the successful outcome of interpersonal skill building and anger management. (Blasi, 1980; Duguid, 1981; Lockwood, 1978; Rest, 1981; Schlaefli, Rest, & Thoma, 1985). A comparison of the outcome from two versions of ART, one with and one without the moral education component, could clarify dilemma discussion's contribution to ART's effectiveness.

The principal problem proposed for investigation was the differential effectiveness in reducing recidivism of these two versions of Aggression Replacement Training (Goldstein et al., 1987), when used with young adult learning disabled male offenders. One version of the program incorporated all three components: social skills training, anger control, and moral education. The second version was composed of social skills training and anger control, plus additional time spent on social skills, but no moral education. Social skills training, which Goldstein, et al., called "structured learning skills", addressed such situations as "expressing a complaint" and "standing up for your rights". Anger control presented techniques for recognizing, planning, and evaluating responses in anger provoking situations. Skills and techniques were modeled and role played. Moral education engaged participants in the discussion of hypothetical dilemmas, following Kohlberg's model for moral education. Lack of funding was addressed by

offering the program as a graduate research project. A year and a half of laying the groundwork by the graduate student and the Executive Director of the LDA, Laurel Jones, resulted in a grant from United Way of King County, which made it possible to pay testers, cover LDA administrative and office expenses, pay minimum rent for program space, and offer a stipend to program instructors.

CHAPTER 2

Review of the Literature

The offender population may include disproportionate numbers of those with learning disabilities (Bell, Conard and Suppa, 1984; Berman, 1978; Keilitz & Dunivant, 1987). Even if not overrepresented, individuals with learning disabilities may have rehabilitation needs that are not met in many community corrections programs. Fowles (1988) proposed that distinct approaches to rehabilitation were needed by neurologically impaired offenders, including those with learning disabilities.

Social skills deficits appear common in both learning disabled and offender populations. Anger control in those with learning disabilities has received scant attention, although anger management has been regarded as an obvious need for offenders. Offenders have been the focus of research on moral reasoning and moral education, but relatively little research has examined the moral reasoning of individuals with learning disabilities. The few studies that have examined moral reasoning in learning disabled persons have produced equivocal results, but offenders have been found to score at lower stages of moral reasoning.

In addition to deficient social skills, anger management and moral reasoning, learning disabled offenders may possess traits and dispositions that could interfere with appropriate behavior and/or problem solving. Moreover, delayed academic achievement itself, which is prerequisite to identification as learning disabled, could contribute directly or indirectly to maladaptive behavior. Perhaps of greatest importance, many of the information processing differences and behavioral tendencies commonly found in individuals with learning disabilities have implications for the design and implementation of appropriate interventions. Aggression Replacement Training is one approach that seems to have potential for the rehabilitation of learning disabled offenders because it can

be adapted to the achievement levels, information processing styles, and behavioral tendencies of learning disabled offenders.

Aggression Replacement Training

The three components of Aggression Replacement Training (ART) -- social skills, anger control, and moral education -- were brought together from diverse disciplines by Goldstein, et al. (1987) to address the behavioral needs of young, incarcerated males. Rejecting the psychodynamic and humanistic-client centered approaches, which assumed that individuals need help to use skills that they already have in their repertoire, Goldstein et al. proposed that prosocial skills are lacking, or at least, deficient in offenders, and thus need to be taught. However, individuals with performance deficits, or non-use of skills in their repertoire, also may respond favorably to skills training, according to Curran, Farrell and Grunberger (1984). Changes in behavior, although mediated by cognitive processes, were believed to be facilitated particularly through the response acquisition and role-playing aspects of the social skills training. Thus, skill-building sessions could induce more appropriate interpersonal interactions both with knowledge-deficient individuals, who lack social skills, and with performance-deficient individuals, who do not use the skills that they possess. The anger control component may be especially effective in mitigating dispositions or behaviors that interfere with successful use of social skills. On the other hand, moral education may enhance self-efficacy, and be productive for those learning disabled offenders who have difficulty in anticipating the consequences of their behavior. All three components may interact to facilitate a reduction in recidivism among offenders.

Components of Aggression Replacement Training

Social skills training. The ART manual (Goldstein et al., 1987) provides detailed guidance for program implementation, particularly for the first sessions. Participants are made aware at the outset that the primary goal of social skills training is enhanced

competence in interpersonal situations. Group rules, such as confidentiality and attendance requirements, are discussed at the initial meeting. A model for subsequent sessions also is presented in the ART manual.

Modeling, role-playing, feedback and transfer elements of ART are designed to teach interactional skills and facilitate their maintenance and generalization. Small group sessions with role-playing give trainees the opportunity to observe instructors and peers modeling skills, such as those needed to express a complaint appropriately, and to engage in such role plays themselves. Trainees see instructors verbalizing self-instructional and self-monitoring thought processes, and are encouraged to verbalize their own thought processes during role-plays. Feedback is provided by both instructors and co-trainees. Maintenance and generalization are facilitated with individually assigned homework, which plans the participant's skill use during the coming week. When meeting during the following week, any problems encountered when practicing skills in the natural environment are discussed, and the skill is role-played again as necessary. In order to facilitate generalization to other settings and situations, Goldstein et al. (1987) recommended additional transfer enhancement techniques such as (a) providing general principles, (b) overlearning, (c) using settings and props to enhance the salience of identical elements during role play sessions, (d) providing stimulus variability through the rotation of group leaders and/or trainees, and (e) participating in role-playing with different co-actors and across several relevant settings. Although flexibility is advised, the ART manual provides detailed guidance for these activities.

Anger control. Goldstein et al. (1987) identified Luria's (1961) work on the normal development of children's self-control through the use of internal speech as one of the precursors of their anger control training. Further development of anger control techniques was attributed to Meichenbaum (1977), whose research focused on impulsivity and poor verbal control of overt behavior.

Anger control training in the ART program includes modeling, role-playing, feedback and transfer training in much the same manner as other social skills training. Each week's program is planned to coincide with topics being discussed that week during social skills sessions. Each session builds upon the previous one, with skills and expectations added gradually. The goals of the anger control program, namely self-understanding and the reduction of anger and aggression, are discussed the first week. The "Angry Behavior Cycle", and its "A-B-C"s -- antecedent, behavior and consequences -- are presented in overview, and notebooks are provided for the organization and filing of the trainees' "hassle" logs. Later sessions introduce (a) recognizing anger cues; (b) using relaxation coping techniques and other anger reducers; (c) knowing your own "triggers"; (d) implementing self-coaching, self-evaluation, and self-rewarding; and (e) thinking ahead to consequences. Anger provoking situations, such as trying to get a recalcitrant friend to repay money owed, are roleplayed and coached with attention to the "A-B-C"s".

Moral education dilemma discussion. Moral education is called dilemma discussion in the ART program. Dilemma discussion is based on Kohlberg's hypothesis that progression to more advanced stages of moral reasoning is induced by cognitive conflict. Dilemma discussion exposes offenders to the moral reasoning of individuals at the stages adjacent to and above their own level of moral reasoning. This exposure results in individual advancement in stages of moral reasoning, according to Kohlberg's theory. Dilemma sessions include a four-step process whereby group members are asked to (1) confront a moral dilemma, (2) state a tentative position, (3) examine the reasoning, and (4) reflect on an individual position. Goldstein et al. (1987) considered moral education to be the cognitive complement to the behavioral component of structured skills, and the affective component of anger management. Although recognizing that research support for the transfer of moral reasoning into moral behavior is limited, Goldstein et al.

believed that, in combination with the first two components, moral education might add to the overall effectiveness of ART through a "synergism" among the training components.

They hypothesized that ART would:

...increase the likelihood that prosocial behavior will occur by (1) explicitly teaching such behavior (Structured Learning), (2) enhancing trainee ability to thwart competing anger arousal responses (Anger Control), and (3) maximizing the likelihood the individual will choose to enact his newly learned prosocial skills because the consequent heightened level of moral reasoning permits, encourages, and or even impels an enhanced sense of fairness, justice, and concern for others (Moral Education) (pp.123-124)

Aggression Replacement Training Research

ART's ability to effect meaningful changes in offenders' behavior was examined by two studies at facilities of the New York State Division for Youth (Goldstein et al., 1987). The first study was with youth, aged 14-17, incarcerated due to crimes such as assault, burglary, auto theft, possession of stolen property, and drug use. Sixty adolescent males were assigned to three conditions. Twenty-four young people had hour-long ART sessions three times a week, for ten weeks. Another group of 24, the "brief instruction" control group, was given the same pretests as the ART group, then engaged in regular institutional activities for the next 10 weeks. The brief instruction control group also received motivational instructions designed to facilitate skilled responses in the posttests, but had no ART instruction. The no treatment group (n=12) received pretests and posttests only. Compared with controls, ART program youngsters demonstrated more significant positive changes on all study outcome criteria, including acquisition and transference of social skills, number and intensity of behavioral incidents, and impulsiveness. The reduction in acting out behaviors was replicated with the 36 control subjects, when they were given the ART curriculum subsequent to completion of the

program by the first group. Short-term positive changes were carried over into the community, as found in blind ratings of postrelease adjustment factors by parole personnel.

The second study of ART's effects included longer-term offenders, age 13-21, with offenses such as murder, manslaughter, rape, and arson. Experimental subjects attended three classes each week, for 10 weeks. Significant acquisition and transfer results were obtained on 5 of the 10 social skills, along with a significant increase on the sociomoral reflections measure. The researchers speculated that the increase in moral reasoning, which had not been seen in the first study, could have resulted from different group leaders, "sequence effects, and especially, personality, aggression-proneness, and demographic differences..." (p. 236). Related to demographic differences, the mean age of subjects in the second study was 18 years, 8 months, as opposed to the first study subjects, whose average age was 15. The older subjects also demonstrated a significant increase in prosocial behaviors. Thus, these two ART studies reported somewhat different, but generally positive outcomes with incarcerated youth.

ART's ability to support postrelease adjustment in the community was examined with 84 youth (Goldstein, et al., 1989). A three month program, meeting twice weekly for 1 1/2 to 2 hour long sessions, provided (1) brief discussion of current life events and difficulties, (2) social skills training, and, on an alternating basis, (3) anger control and moral education. A sample of the youths' parents also received weekly ART sessions. A control group did not receive ART. Both youth who received ART with no family involvement and those whose families received ART significantly increased their interpersonal skills levels, when compared with the control group by means of an analysis of variance ($F(2,83) = 7.64, p < .01$). Both ART groups demonstrated significantly lower scores in mean anger arousal than controls, but only on some anger situation inventory items. Goldstein et al. judged that strongly provocative situations, such as

physical abuse, control, or coercion from others, having one's personal space invaded, and betrayal of trust, were not effectively moderated by ART. A Chi-square analysis of the frequency of re-arrest during the six months following release showed that ART participants had significantly fewer law encounters than controls ($X^2 = 8.25, df = 2, p < .02$).

The Development of ART's Components

The nature, origins, and research of social skills training, anger control, and moral education provides insight into the basis of the choice of these components for the Aggression Replacement Program. Although disparate in their development and the populations they initially were designed to serve, each component has been used with offenders or learning disabled individuals.

Social Skills

Definition and components of socially skilled behavior. As recently as 1986, Trower found that a consensus on the definition of socially skilled behavior had yet to emerge. Shepherd (1983) considered that referents such as social skills, social competence and social intelligence were best viewed as hypothetical constructs, developed through inference to imply the possession and/or demonstration of traits, abilities or behaviors. Such referents are formulated to explain observed personal interactions and frequently are used interchangeably to denote competence in social interactions. However, a number of researchers have made distinctions among them, principally differentiating individual behaviors from a generalized competence (Argyle, 1980; Deshler & Schumaker, 1983; Gresham & Elliott, 1987).

Social skill is involved in the cognitive, emotional and behavioral components of verbal and non-verbal communication (Wilkinson & Canter, 1982). It may be conceptualized as part of generalized social competence, along with adaptive behavior (Gresham & Reschly, 1988). According to Argyle (1980) social skill refers to "the

ability, the possession of the necessary skills, to produce the desired effects on other people in social situations" (p. 123). Social skill may be defined by peer acceptance, as well as the prediction of important social outcomes (Gresham & Elliott, 1987), and probably requires skills in social perception and knowledge (Eisler, 1976; Holyoak & Gordon, 1984; Morrison & Bellack, 1981; Ostrom, 1984; Snyder, 1974; Snyder & Monson, 1975).

Morley, Shepherd, & Spence (1983) emphasized that social perception is only one of a complex chain of events involved in choosing a behavioral response. Social inadequacy may result from deficit social skills, but also may be produced by anxiety, situational antecedents and consequents or mediating cognitions (Arkowitz, 1981). Lack of self-control skills, or factors such as inflexibility, also may impair or inhibit performance in spite of adequate knowledge and/or ability (Gresham & Reschly, 1988). Such factors have been found to play roles in social failure in general (Snyder & Monson, 1975; Trower, 1981), and in the social problems of aggressive children (Dodge & Richard, 1985)

Social skills training methods. Whether called social competence, social skill, or social intelligence, components and traits involved in interpersonal situations have been a focus of concern with special populations perceived as lacking abilities in these areas. Programs have been developed to address such apparent deficits. Social skills interventions for the learning disabled, delinquents and adult offenders have emerged from training programs designed for various other populations.

Training methods used in social skills programs commonly include coaching and modeling (Gresham, 1985; Schumaker & Hazel, 1984), and role-playing with feedback (Eisler, 1976; Sarason & Sarason, 1981; Schumaker & Hazel, 1984). Schumaker and Hazel found evidence that learning disabled individuals can learn to use self-control procedures. The importance of programming specifically for generalization has been

emphasized by Deshler and Schumaker (1983), Gresham and Reschly (1988), and Schumaker and Hazel (1984).

Social skills training development and research. Social skills training (SST) in the United Kingdom has commonly been linked to the work of Michael Argyle in the 1960s and Peter Trower in the 1970s (Shepherd, 1983). In the United States, Wolpe and Lazarus in the 1960s laid the groundwork for SST, according to Shepherd. Skinner's contributions also have been cited (Hollin & Trower, 1986; Wilkinson & Canter, 1982), as have been those of neo-Freudians, ego-psychologists and social learning theorists such as Mischel and Bandura (Curran, 1985). Programs were developed to enhance skills, such as assertiveness (Wolpe & Lazarus, 1966), and stress inoculation was developed to train individuals to deal with interfering behaviors (Meichenbaum, 1985; Meichenbaum and Cameron, 1983). Social skills training (Goldstein et al., 1980a) and anger control programs (Feindler & Fremouw, 1983; Novaco, 1979) emerged from this trend.

Trower (1984) noted that principal investigators had expressed reservations about the effectiveness of social skills training, and saw a danger that this "healthy skepticism" might give way to "terminal pessimism" (p. 2). However, Brady (1986) believed that "Controlled clinical-outcome studies attest to the efficacy of these procedures" (p. 1373). Liberman (1986) reviewed social skills training research with schizophrenic patients, citing more than 40 published studies. He found a convergence across studies, which were in agreement that improved social functioning in specific situations could result, that there was moderate generalization and decreased social anxiety, and that the overlearning from repeated practice promoted retention.

With a group of male psychiatric patients whose diagnoses included character disorders, neuroses and schizophrenia, Goldsmith and McFall (1975) demonstrated that an interpersonal skill training program was superior to pseudotherapy or assessment only conditions. Trained patients were superior on behavioral and self-report measures both in

the training context and in a more real-life context.

Braswell, Kendall and Urbain (1982) examined the outcome of social skills training with a focus on the socioeconomic status of the children involved. They found that improvement did occur for some children, and that there were comparable amounts of change for both high and low SES children. The better developed verbal ability of the higher SES children did not appear to result in differential benefit from the verbal self-instructional procedures.

Sarason and Sarason (1981) used a modeling and roleplaying format to teach social skills to high school students in a high dropout and delinquency area. Compared with controls, trained students developed more adaptive ways of problem solving and were more effective in a job interview situation. Maintenance after one year was demonstrated in lower rates of tardiness, fewer absences and behavioral referrals in the trained group.

Social skills training has been employed to facilitate more successful personal interactions both with "deviant" populations, and those considered "normal." Programs have been developed for the psychiatrically disturbed (Winter & Marzillier, 1983; Wolpe & Lazarus, 1966); including schizophrenic (Shepherd, 1986), socially anxious (Trower, 1986), mentally handicapped and organically impaired (Matson & DiLorenzo, 1986), depressed (Williams, 1986), and substance abusers (Monti, Abrams, Binkoff, & Zwick, 1986). SST also has been used in training health professionals (Maguire, 1986); children in schools (Frosh, 1983); college and university students (Argyle, Furnham, & Graham, 1981; Bryant & Trower, 1974); teachers, social workers, community workers, youth leaders, health visitors, counselors, careers officers, employment advisory officers, speech therapists, physiotherapists, occupational therapists, and junior executives (Ellis & Whittington, 1981). Some measure of success generally was reported in these studies.

Summary. Many social skills training programs have been reported to improve interpersonal functioning . Although much remains to be confirmed regarding the

elements of a social skills program that will produce long-lasting change, SST has been accepted as a worthwhile component in the rehabilitation of various populations that have difficulties with interpersonal situations.

Anger Control

Feelings of frustration, stress and anger are frequent occurrences in the lives of most individuals. Anger interferes with the demonstration of prosocial behaviors and consistently increases the probability of aggression (Feindler & Fremouw, 1983; Novaco, 1979). Thus anger control has been judged pertinent in reducing aggressive behaviors, a frequent concern with offenders.

Definition of anger. Novaco (1979) identified "anger as an affective stress reaction that has important cognitive and behavioral determinants" (p. 241). He envisioned a transactional model of stress, involving interaction between the person and the environment, with a continual feedback network. Within this view, anger arousal was seen as a "response to perceived environmental demands--most commonly aversive psychosocial events" (p. 252). Both physiological and psychological determinants played roles in the feedback cycle. Likewise, Feindler and Fremouw (1983) observed that anger was typically defined as "an affective response to stress during which a person experiences high levels of physiological arousal..." (p. 452). The interaction of the perception of frustration or insult, and the level of arousal and motoric behavior during provocation are hypothesized to affect the level of anger, according to Feindler and Fremouw.

Anger control program development and research. Novaco (1979) identified Witmer, in 1908, as reporting the first successful treatment of anger. He also found that Redl and Wineman, in the 1950s, popularized "an ego psychology" approach to anger control, using aggressive adolescents as their subjects. From the perspective of this

psychoanalytic approach, behavioral control was seen as the result of the internalization of control mechanisms .

According to Novaco (1979), Gerald Patterson at the University of Oregon, and other investigators using desensitization and reciprocal inhibition, pioneered the development of behavioral interventions for anger control. Kazdin (1977) pointed out the major deficiency of behavioral approaches in failing to address skill maintenance and transfer, calling for more behavioral technology, including attention to the development of contingencies within existing systems.

Novaco (1979) suggested that the behavioral intervention, where successful, probably facilitated modification of the mediating cognitive processes. The deliberate incorporation of cognitive components into behavioral skills training programs to enhance generalization was recommended by Feindler and Fremouw (1983) and Gresham (1985). A body of research was developed in support of the effectiveness of self-instructional training, which Novaco applied to the anger management techniques subsequently refined by Feindler and her colleagues (Feindler & Fremouw, 1983; Feindler, Marriott, & Iwata, 1984).

The roots of cognitive-behavioral approaches to anger management frequently have been traced to Meichenbaum's (1977) stress inoculation work (Feindler & Fremouw, 1983; Morley, Shepherd & Spence, 1983, p. 323). Meichenbaum and Cameron (1983) discussed the emergence of a transactional view of stress, quoting the view of Lazarus and Cohen that stress occurs in the face of "*demands that tax or exceed the resources of the system* or...demands to which there are no readily available or automatic adaptive responses" (p. 117).

Meichenbaum (1977) used the term "coping-skills training" to refer to programs designed to alleviate such problems as speech or test anxiety, phobias, social incompetency, alcoholism, social withdrawal and pain. Meichenbaum identified three

phases in this coping skills training or "stress inoculation": (1) education of the client, (2) skills training, and (3) practice under increasingly stressful circumstances. Possibly in response to widespread concerns regarding the lack of generalization of skills training, Meichenbaum and Cameron (1983) re-labeled their third phase as "application and follow-through". This third phase provided added emphasis on helping the client to analyze successes and failures, as well as other methods of enhancing maintenance and transfer. Meichenbaum found the application of stress inoculation procedures to anger management to be an interesting and promising direction for treatment.

Novaco (1979) described the stress inoculation approach to anger control as not attempting to suppress anger, but rather to minimize maladaptive effects and maximize adaptive function. Novaco found several stages of such training: "(a) preparing for provocation; (b) impact and confrontation; (c) coping with arousal; (d) subsequent reflection; (e) conflict unresolved; and (f) conflict resolved" (p. 269), each needing to be addressed by the availability of appropriate self-instructions.

Novaco (1979) reviewed the results from several of his studies in anger control using the stress inoculation approach. He reported on the measurement of stress inoculation with 34 subjects with identified anger control problems. In comparisons of cognitive treatment alone, relaxation treatment alone, a combination of the two, and a control, no-treatment group, Novaco found that the combination of stress inoculation measures with relaxation training was most effective. A revised anger control program replicated these positive outcomes in clinical case and group studies conducted by Novaco.

A single case study in using the stress inoculation approach to anger control was reported by Spirito, Finch, Smith, & Cooley (1981). Using an intervention that followed Meichenbaum's model, a 10 1/2 year old boy with severe anger and anxiety control

problems showed improvement during training, which was maintained and increased during the follow-up period.

Concern regarding generalization of effects stimulated some researchers to incorporate additional treatment measures that are thought to facilitate generalization of learned skills. However, most studies do not appear to address directly the question of maintenance and transfer effects. Further research is needed to determine if cognitive-behavioral and/or behavioral-cognitive approaches to anger control are superior to behavioral approaches in regard to transfer and generalization effects.

Feindler and Fremouw (1983) emphasized the importance of the availability of appropriate assertive skills, verbal and nonverbal, to replace aggressive responding as it comes under control. These researchers also recommended that attention be given to problem solving strategies, such as identifying problems, alternatives, consequences, choosing an alternative and monitoring the outcome. Feindler and Fremouw believed that stress inoculation alone may not be sufficient in building more appropriate interactive responses, but should be supplemented with the behavioral and cognitive training of social skills.

Summary. Investigators have found some anger control programs effective in reducing angry and aggressive behavior. An approach that incorporated programs to supplement anger control and that included methods to enhance the generalization of skills was recommended.

Moral Reasoning, Moral Education and Moral Behavior

Education and skill development alone are seen as insufficient to facilitate more adequate functioning and better choices by many in both the educational and correctional systems. Moral education or values education programs are designed to help individuals make responsible choices for behavior that will respect the rights of others as well as promoting their own best interests.

Moral education methods and research. A number of theoretically based moral education programs were reviewed by Elias (1989), who identified three approaches: cognitive, affective, and action oriented. Many cognitively oriented programs make use of Kohlberg's stages of moral development (Kohlberg, Levine, & Hewer, 1983). Houston (1983) found that Kohlberg-type dilemma discussion, when focused on cheating, reduced cheating behavior among college students, at least in the short-term. No effect was found when discussion was unrelated to cheating or when teachers delayed the test that provided the opportunity for cheating. Haan (1985) proposed that moral development was enhanced by social disequilibrium, rather than cognitive disequilibrium. Haan compared the moral development effects of hypothetical dilemma discussion versus playing games designed to introduce social disequilibrium. Her results were consistent with an affective-conflict view of moral development, but not with a cognitive-equilibration model, such as proposed by Kohlberg.

Kohlberg and his associates (1983) believed that "the relationship of moral stage to action is a monotonic one" (p. 48), with higher stages of reasoning correlating with greater probability of moral action. Arbuthnot and Faust (1981) observed that various investigations into the relationship between moral reasoning and moral behavior supported the position that the choice of moral behavior is possible at any stage of moral reasoning. However, Arbuthnot and Faust suggested that the stage of reasoning may influence the behavioral choice, depending upon the situation, because of the nature of the moral reasons that are guiding the behavior. Thus, those who behave morally because of "rules", which is a lower stage of moral development, may not maintain their moral choice when it appears that the rules are not going to be enforced in a particular situation; in contrast, those at a higher stage of reasoning make their moral choice based upon their concept of responsibility to society at large, and maintain their choice whether or not rules are enforced in a given situation.

Moral reasoning may be only one aspect of producing moral behavior. Rest (1989), in his review of Kohlberg's work, discounted Kohlberg's formulation of moral reasoning stages as his most important contribution to the psychology of morality. Rest viewed as most important Kohlberg's emphasis on the cognitive construction of social reality, "--the assumption that an understanding of morality must take account of the ways that people understand society and social relationships, and that people's understanding involves a process of inner cognitive construction" (p. 88). Rest proposed that there is much to be learned about morality from new investigations into "social cognition", including attribution theories and the relation of attitudes to behavior. He suggested that there are a multiplicity of components in moral development, aside from the stages proposed by Kohlberg. Four major components in morality identified by Rest were: moral judgment, moral sensitivity, moral motivation, and character or ego strength.

Kohlberg's more recent formulation of an approach to moral education (Power & Kohlberg, 1989), reflected his transfer of emphasis for moral development from the individual to the broader perspective of the "just community". Building the just community included establishing group loyalty as a means of building motivation to serve group expectations and group goals. This view is quite different from Kohlberg's earlier proposal to build moral reasoning through cognitive conflict, as exemplified in Goldstein et al.'s (1987) application of Kohlberg's theory in the moral education component of their program. However, a moral education program may be effective for reasons other than those hypothesized by Kohlberg. Dilemma discussion, in conjunction with other ART components, could heighten moral sensitivity, moral motivation, or enhance character and ego strength, as well as raising the moral reasoning level of offenders.

Schlaefli, Rest, & Thoma (1985) conducted a meta analysis of 55 studies of educational interventions designed to stimulate development in moral judgment. Two studies used offenders as subjects. All measured results using the Defining Issues Test, a

multiple choice test derived from Kohlberg's approach. Schlaefli et al. followed Cohen in assigning the cutoff for a small effect size at .20, medium at .50, and a large effect size at .80. They found that both dilemma discussion and psychological development programs produced modest overall effect sizes, an average of .28 (95% confidence interval ranged from .20 to .36). An effect size of .08 (95% confidence interval ranged from -.11 to .27) was found with those who received some type of educational program. Controls, with no program exposure, showed an effect size of .11 (95% confidence interval ranged from -.01 to .23). Moral education programs with adults aged 24 or older produced larger effect sizes (.61) than those with younger subjects (.22 to .28), although Schlaefli et al. believed this result could have been an artifact of the data. Several explanations appeared possible, including the fact that these adults were volunteers, as opposed to the younger subjects, who tended to be "captive audiences". Schlaefli et al. also found that interventions longer than 12 weeks had no more impact than 3-12 week interventions; those less than 3 weeks were ineffective. Courses in the humanities and social studies did not lead to the development of moral judgment.

Moral development research has indicated that levels of moral reasoning can be raised. Higher levels of moral reasoning have been hypothesized to lead to more moral behavior; however, the relationship between moral judgment and moral behavior is unproved. Higher levels of moral reasoning alone may be insufficient to produce moral behavior, which may be influenced by other factors as well.

Summary

ART's components were based upon a broad spectrum of theory and investigations into the development and training of social skills, anger control, and moral reasoning. These program components emerged concurrently to address the needs of many different types of individuals. Continued interest and the use of training programs for social skills,

anger control, and moral reasoning were stimulated by the successful outcomes reported by a number of researchers.

Learning Disabled Offenders

The Identification of Learning Disabilities

Definition. Federal rules and regulations (Department of Health, Education and Welfare, Office of Education, 1977) defined a learning disability as:

"Specific learning disability" means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, or environmental, cultural, or economic disadvantage [Section 121a.5 (9), 1977].

Reflecting growing awareness of social skills deficits among the learning disabled, the Interagency Committee on Learning Disabilities (1987) recommended the addition of "social skills" as an identified deficit area in the federal definition of learning disabilities. Given the definitional and assessment issues that also have troubled the social skills field, such an addition would not be likely to clarify the definition of learning disabilities.

A definition of learning disabilities based on neuropsychological variables may emerge, and would be particularly welcome if verifiable through technological advances, such as Magnetic Resonance Imaging (Languis & Wittrock, 1986; Lyon, 1985). However, in the absence of a consensual alternative, the definition found in the Federal Register is widely used as the basis for establishing diagnostic criteria.

The diagnosis of learning disabilities in educational settings. Each state's department of education publishes its own rules and regulations to guide the diagnosis of learning disabilities in its jurisdiction. The State of Washington (1990) provides that children, adolescents and young adults may be diagnosed as having learning disabilities if they demonstrate (a) intellectual functioning above the mentally retarded range, and (b) a severe discrepancy between intellectual ability and academic achievement in oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematics calculations, or mathematics reasoning. The State of Washington (1989) provides tables that identify a "severe" discrepancy, based upon a regression analysis formula. About 4% of school children will be identified by these tables.

Children and adolescents cannot be considered eligible for special education or related services as learning disabled if their delays are adequately explained by any other handicapping condition, including a serious behavioral disability. Professional judgment may be used to diagnose learning disabilities, if supported with evidence that explains why the individual does not meet the discrepancy criterion (State of Washington, 1990, WAC 392-171-413).

The diagnosis of learning disabilities in adults. Recommendations for the assessment of adult learning disabilities are found in Duane (1985), Hartlage (1985), Johnson and Blalock (1987), McCue et al. (no date), and Vogel (1985). Duane proposed that psychoeducational evaluation should measure academic potential, memory, visual-motor skills, and academic achievement. He further suggested the need to address alertness, attention, affective state, nonverbal attributes and dexterity.

Hartlage (1985) recommended the Wechsler Adult Intelligence Scale (WAIS-R) to measure potential. He noted that many have considered the Wide Range Achievement Test-Revised (WRAT-R) as adequate to reflect achievement levels. Hartlage proposed

that a comparison of the measures of potential and achievement should show a discrepancy of at least one standard deviation, or 15 points, when considering a diagnosis of learning disabilities. Other descriptions of diagnostic batteries listed a wide variety of tests and procedures (McCue, et al., no date; Ostertag, 1982; Vogel, 1985), but the tests recommended by Hartlage, and similar standardized instruments were those most commonly employed in the diagnosis of adult learning disabilities.

The diagnosis of learning disabilities may be complicated by a history of substance abuse and/or head injury. Both substance abuse and head injuries may produce cognitive impairments (Bond, 1986; Carlin, 1986). Substance abuse also may be implicated in the etiology of the head trauma. Loberg (1986) reported that 46-62% of drivers suffering serious injury in traffic accidents were intoxicated. However, both Loberg and Gorenstein (1984) cited evidence that some alcoholics, including those with antisocial personality disorder, may suffer from ADHD deficits preceding the onset of drinking. The possibility of neurological impairment both preceding and subsequent to the educational experiences of offenders presents obvious problems in the diagnosis of adult learning disabilities.

Learning Disabilities, Attention Deficit-Hyperactivity Disorder, Conduct Disorder and Criminality

The overlap between learning disabilities, attention deficit-hyperactivity disorder (ADHD), conduct disorder and criminality further complicates the diagnosis and treatment of individuals in real life settings. The category of ADHD has been criticized for its imprecision in definition and diagnosis. To further obscure the delineation of ADHD, research sometimes has not differentiated between children with attention deficit disorder without hyperactivity (ADD) and those with attention deficit-hyperactivity disorder (ADHD). Children with learning disabilities may have attentional problems with or

without hyperactivity. A connection between attention problems without hyperactivity and criminal involvement has not been suggested by the research.

The essential features of Attention Deficit-Hyperactivity Disorder are described as developmentally inappropriate degrees of inattention, impulsiveness, and hyperactivity, generally with some disturbance in each of these areas, but to varying degrees (American Psychiatric Association, 1987). In older children or adolescents ADHD may be seen in excessive fidgeting and restlessness, inattention and impulsiveness, failure to complete assigned tasks or follow instructions, careless work, or usurpation of responsibilities by spur of the moment diversions. About 1/3 of children with ADHD may continue to show symptoms as adults. A particularly poor outcome is seen when ADHD coexists with conduct disorder, low IQ, and severe mental disorder in the parents.

In 1988, Shaywitz and Shaywitz (cited in Fletcher, Morris, & Francis, 1991) reported that about 50% of the children who meet DSM-III-R criteria for ADHD have a specific learning disability, and at least 50% of ADHD children with learning disabilities will meet DSM-III-R criteria for oppositional-conduct disorder. They also found that almost all children who meet criteria for oppositional-conduct disorder will meet criteria for ADHD, and around 25% will meet criteria for a specific learning disability.

Cantwell and Baker (1991) discovered a strong association between learning disabilities and ADHD both in initial and followup samples. An increased prevalence of both conditions was found among children with early speech/language impairments. Children with learning disabilities were found also to have increased rates of other psychiatric disorders, such as behavior, mood, and anxiety disorders.

High activity level ADHD children who develop a conduct disorder may not receive a learning disabilities diagnosis. As such children grow older, it becomes very difficult to determine the cause of their learning delays, which often are attributed to oppositional behavior within the school setting. Such children are likely to be classified as hyperactive

or conduct disorder rather than learning disabled. On the other hand, ADHD children with learning disabilities may be classified only according to their learning disabilities, with ADHD symptoms not formally acknowledged in their diagnostic category.

Individuals in whom learning disabilities, aggressiveness, and ADHD converge are likely to be represented among those identified as learning disabled through screening in the courts. Antisocial personality disorder, hypothesized to be present in as many as 75% of certain prison populations, is an adult outcome for children with attention deficit disorder more often than those without ADD (Vaillant & Perry, 1985). A childhood diagnosis of ADD often is followed by that of a conduct disorder, which, typically, is accompanied by angry feelings and/or aggressive behavior.

Children with learning disabilities or attention deficit-hyperactivity disorder are more likely than nonhandicapped children to experience abuse. Experiencing abuse as a child predisposes to later criminal behavior, which is especially likely to be of a violent nature (American Psychiatric Association, 1987; Fontana, 1985; Hirschi, 1983; Lewis, 1985a) Learning angry behavior as a result of such modeling is one explanation offered for the poor outcome for abused children.

Learning disabled individuals without ADHD also may be found in the courts, due to the contribution of other correlates of learning disabilities, such as noncompliant behavior, financial inability to pay fines, lack of organizational skills, or misunderstandings caused by poor reading abilities. Learning disabled individuals also may have law enforcement encounters because of factors unrelated to their learning disabilities or ADHD. However, relatively little research has been done on the offending behavior of learning disabled individuals without ADHD.

Summary. The definition and diagnosis of learning disabilities are clouded by a number of issues, particularly when considering learning disabled offenders. The diagnoses of learning disabilities and ADHD in offenders are further complicated by their

overlap with conduct disorder, antisocial personality disorder, head injury and substance abuse. However, difficulty with social interactions, anger management, and moral decision making may be a common thread in these overlapping conditions.

Social Skills Deficits as Correlates of Learning Disabilities and Criminal Status

Substantial research has been accomplished on the correlates of learning disabilities in children and adolescents, often finding a high incidence of behavioral and socioemotional difficulties. Such interactional problems may result from not knowing what to do, a knowledge deficit, or result from the failure to use skills that are in person's repertoire, a performance deficit (Blanton, 1984; Goldstein, D., & Dundon, 1987; Kasik, Sabatino, & Spoentgen, 1987; Knott & Tatum, 1984; Schumaker, Hazel, Sherman, & Sheldon, 1982; Tindall, 1984; Walker, 1987).

The academic, behavioral, and emotional problems often associated with learning disabilities may persist throughout adolescence (Jackson, Enright & Murdock, 1987; Schumaker, Hazel, Sherman, & Sheldon, 1982), and into adulthood (Brown, D., 1980; Johnson & Blalock, 1987; McCue, Katz, Goldstein & Rudisin, no date; National Joint Committee on Learning Disabilities, 1987a; Whitmore & Maker, 1985). At least two studies suggested that learning disabled adults themselves, and their families, advocates, and service providers frequently perceived various social inadequacies (Hoffman, et al., 1987; Johnson & Blalock, 1987).

Adult private clinic clients. Johnson and Blalock (1987), in their group of 93 self-referred adults, found that the chief complaints of the adult learning disabled related to problems with attention, oral language, reading, written language, mathematics, nonverbal abilities, conceptual thinking, organization and planning. These resulted in educational, vocational and social difficulties. Twenty-five percent of these learning disabled adults reported social problems; however, Johnson and Blalock believed the true percentage to be higher, because their finding was that those with nonverbal deficits

sometimes were unaware of the reactions of others. Those clients with nonverbal thinking disorders, which interfered with spatial orientation, body image, facial recognition, social perception, and various visual-spatial motor processes needed for writing and computation, were found to have the greatest social difficulties, and tended to be socially isolated. The social inadequacies of this nonverbal-impaired group seemed to result from lack of skill in perceiving others accurately, lack of self-perception, and lack of social skills in general. Non-verbal learning disabilities have been found by others to correlate with an increased likelihood of adult depression and suicide, as well as deficient social skills (Fletcher, 1989; Kowalchuk & King, 1989; Rourke, 1989; Rourke, Young & Leenaars, 1989).

Johnson and Blalock (1987) noted that behaviors directly related to the academic learning disability also impacted social functioning. Oral language deficits could result in awkward communication, while writing difficulties hindered socially valued tasks such as writing thank you notes. Academic deficits could impact ability to look up numbers in the phone book, driving, using public transportation, writing checks, and balancing checkbooks. Such problems gave others the impression of low social maturity and reduced the learning disabled individual's overall feelings of self-competence and self-esteem. Low self-esteem has played an important role in some theories of the etiology of deviant, and specifically, offending behavior (Kaplan and Robbins, 1983).

Vocational rehabilitation clients. The Western Psychiatric Institute and Clinic training manual for rehabilitation psychologists (McCue, et al., no date) referred frequently to the social skills deficits of learning disabled adults, both in describing their characteristics and in reviewing areas of diagnostic assessment. Zwerlein, Smith and Diffley (1984), in addressing the needs of learning disabled vocational rehabilitation clients, focused on the behavioral characteristics of hyperactivity, impulsivity,

disinhibition, perseveration and low tolerance for frustration, which have obvious implications for negative social outcomes.

Hoffman, Sheldon, Minskoff, Sautter, Steidle, Baker, Bailey, and Echols (1987) surveyed 381 persons eligible for vocational rehabilitation services as learning disabled, as well as 948 service providers and 212 parents and/or advocates for this population. In addition to needing skill development to handle personal and daily living problems, both learning disabled adults and those who knew them well identified social skills areas that needed training. Talking or acting before thinking were the major concern for all three groups, while the adults themselves also identified dating and shyness as major problems. Other problem areas highlighted were making and keeping friends, making conversation, using free time, and dependence on others. Hoffman et al. also cited the 1982 ACLD survey of 562 learning disabled adults, in which the "area ranked highest in terms of desire for assistance involved social skill training". Substantial numbers of learning disabled adults themselves are aware of inadequacies in social interactions.

College students. Learning disabled college students show functional difficulties in that setting (Mangrum & Strichart, 1984; Schmidt & Sprandel, 1982; Smith, no date; Wren, Adelman, Pike, & Wilson, 1987). Aside from having academic problems, such students are described as needing to develop personal interaction skills (a) to explain their disability to their professors (Dexter, 1982); (b) to obtain services from such places as the campus bookstore, cafeteria, campus security, special services departments, and handle their social lives (Brill, 1987); (c) to find and use campus counseling services or support groups (Scheiber & Talpers, 1987); and (d) to take responsibility for their own financial and physical well-being (LD students, 1987). The problems of these apparently "higher-functioning" learning disabled adults suggests that difficulties in social interactions are not restricted to learning disabled from lower IQ ranges or lower socioeconomic settings.

Offenders. A number of researchers have found that deficits in socially skilled behavior correlate with offender status, and may contribute to the problems that lead to adjudication (Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1978; Little & Kendall, 1979; Schumaker, Hazel, Sherman, & Sheldon, 1982; Spence, 1981). Offenders violate society's laws --formal written rules that proscribe certain behaviors as detrimental to an orderly and peaceful community. Usually proscriptions relate to the infliction of bodily harm or protection of property, but laws also may apply to maintaining public decorum and appropriate behavior. Socially unskilled individuals may be more prone to commit offenses; however, it is obvious that many socially unskilled persons do not become adjudicated offenders. Any relationship linking social skills deficits and offending status is likely to be complex.

Etiology and heterogeneity of social skills deficits. The social skills deficits of learning disabled individuals may develop from (a) environmental factors (Dodge & Richard, 1985; Weiss & Hechtman, 1986, pp. 186-187); (b) individual differences, such as low academic achievement (Bursuck & Asher, 1986; Pearl, Donahue, & Bryan, 1986); (c) low self-esteem and maladaptive attributions (Gresham & Reschly, 1988; Jacobsen, Lowery, & DuCette, 1986; Licht, 1983; Licht, Kistner, Tulin, Ozkaragoz, Shapiro, & Clausen, 1985; Oka & Paris, 1987, p. 122; Thomas & Pashley, 1982); and (d) deficient social perceptual skills (Jackson, Enright, & Murdock, 1987; Johnson & Blalock, 1987; Pearl, Donahue, & Bryan, 1986). Diverse and multiple factors are likely to contribute to the etiology of social skills deficits.

Samples of learning disabled individuals have been found to contain intragroup differences as to level and quality of social performance (Carlson, 1987; Porter & Rourke, 1985). Some learning disabled children and adolescents appear to demonstrate adequate socioemotional adjustment in spite of the high incidence of such problems in this

population. It cannot be presumed that learning disabilities always correlates with interpersonal difficulties on an individual level.

The social skills deficits of offenders, although not the only possible, or even most probable source of offending behavior, have been of interest to many researchers. Skills may not be developed if appropriate models are lacking, if inappropriate models are present, or if offenders do not learn from the appropriate models that are available. Social inadequacy may correlate with offending status, however, Little and Kendall (1979) cautioned against presuming that all offenders have social skills deficits. Little and Kendall pointed out that 26% of Chandler's (1973) sample of female offenders, as well as the minority of male offenders, did not appear to have deficient social skills. Spence (1981) found that, as a group, convicted young offenders were indeed less socially skilled on several types of dependent variables than boys of similar background without an official record. Spence also noted that the groups were heterogeneous, as had Schumaker, Hazel, Sherman and Sheldon (1982). Some offenders appeared very skilled socially, and conversely, some seemed very unskilled.

Social skills research with learning disabled and offenders. Freedman, Rosenthal, Donahoe, Schlundt and McFall (1978) examined the social competence of 40 delinquent and 40 non delinquent boys, ages 16-17. Significant performance differences were found between the delinquent and non-delinquent subjects, with delinquents expressing or choosing less socially skilled behavior, both with the free response and with the multiple choice versions of the Adolescent Problems Inventory. In the free response condition, when given the alternate instructions to choose the "best" solution, rather than what they would actually do or say, both delinquent and non-delinquent chose or expressed more socially skilled responses. Both delinquent and non-delinquent boys may recognize a difference between what they know to be appropriate social behavior and what they believe that they would do. The multiple choice version of the survey also produced more

socially skilled answers for both groups of boys, delinquent and non-delinquent.

Freedman et al. showed that both groups of boys could and would pick the more socially skilled response from a multiple choice format. A multiple choice format could facilitate responses from learning disabled with expressive language difficulties, as well as helping individuals to recognize a variety of alternatives. These results suggested that, to some extent, and in some situations, both delinquents and non-delinquents may demonstrate a performance deficit, as opposed to a knowledge deficit, in social behavior.

Schumaker, Hazel, Sherman and Sheldon (1982) measured the performances of adolescent learning disabled, non-learning disabled, and juvenile delinquent subjects on eight general social skills that previously had been found likely to be deficient in young offenders. Although there was heterogeneity within the groups, they found that those in the non-learning disabled groups were more socially competent than the learning disabled, with the juvenile delinquents showing the least ability in the social skill role-plays. Overall, Schumaker et al. found the social skills of the learning disabled youths to be more similar to those of the offenders than the skill levels displayed by their non-learning disabled peers.

Schumaker and her colleagues (1982) suggested that socially unskilled learning disabled may compose a subgroup of LD who are more likely to become offenders. This hypothesis was supported by the results of the Larson and Gerber (1987) study. Larson and Gerber also found that the learning disabled offenders derived more benefit from social skills training than underachieving, but non-learning disabled, offenders.

Bornstein et al. (1979) found that adult male incarcerated offenders demonstrated gains both in skills practiced and those not practiced after six sessions of a modeling, roleplaying and coaching social skills program. Experimental gains of Bornstein et al.'s subjects were in contrast to no gains made by their comparable waiting list control subjects.

Deficiencies in skill knowledge and performance have been identified both with learning disabled and offenders. Individual characteristics and environmental factors could interact in the production of unskilled behavior by learning disabled offenders. Social skills training using methods responsive to the learning styles of learning disabled offenders could provide benefits in many aspects of their daily lives, as well as reducing recidivism.

Anger/Aggression Problems in Learning Disabled Offenders

The characteristics of individuals with learning disabilities and offenders suggest that they might be particularly likely to engage in angry behavior. Research supports the view that anger control training will be useful to the learning disabled offender.

The function of anger. McKay, Rogers, and McKay (1989) believed that anger functions to stop stress by discharging or blocking awareness of painful levels of emotional or physical arousal. Anger serves to dissipate painful affect, such as anxiety and fear, loss and depression, hurt, guilt and shame, and feelings of failure, badness, and unworthiness. Anger also may reduce or eliminate painful sensation, such as that experienced from rushing, physical pain, overstimulation, muscle tension, tiredness and overwork. Anger may release tension resulting from frustrated drive, which arises out of blocked needs or desires, a sense that things are not as they should be, or the sense of being forced. Anger also may be a response to threat, such as feelings of being attacked, engulfed or abandoned.

Anger and criminal behavior. The presence of angry feelings is explicit or implicit in most theories of the etiology and definition of criminal behavior. Irritability and aggressiveness, as indicated by repeated physical fights or assaults, is included in the diagnostic criteria for antisocial personality disorder (American Psychiatric Association, 1987). Group conflict theories link criminality with tension, such as that created by racial bias between one segment of society and another. Criminality may

evolve from the struggle of the socially and economically disadvantaged against the privileged segment of society. The finding that criminality increases with a disproportionate growth in the number of young people (Silberman, 1978) suggests that adolescent stresses and/or rebellion could contribute to criminal status. A physiological predisposition towards personality characteristics such as argumentativeness, hyperactivity and thrill seeking is mentioned by others (Herrnstein, 1983). Frustration because of the failure of schools to educate all equally well may be a contributor to criminal behavior (Nelson, 1987; Toby, 1983). However, factors both endogenous and exogenous to the individual are likely to contribute to criminal behavior (Lewis, 1985a), with frustration and anger making up only one component.

Anger and learning disabilities. Anger's function to discharge stress, dissipate unpleasant feelings and sensations and elicit a response to threat seems to have many applications to individuals with learning disabilities alone, or those whose learning disabilities are secondary to attention deficit hyperactivity disorder. Learning disabled individuals may suffer from a variety of unpleasant feelings and sensations. Anxiety and depression have been found to correlate with learning disabilities (Porter & Rourke, 1985). Guilt and shame may be experienced with school failure, along with other negative feelings (Covington and Omelich, 1985). Learning disabled or ADHD children, trying to achieve success within the school setting, may experience physical tension that results in psychosomatic symptoms (Porter & Rourke, 1985). Physical tension also may facilitate angry responses. Blocked need for achievement may result in physiological arousal. Also, learning disabled students may have a pervasive sense of loss that results from awareness of achievement levels that do not meet their own expectations or those of their parents or teachers (Cohen, 1986). Learning disabled individuals may be very cognizant that they are not achieving as well as their peers of equal or lesser intelligence,

feeling that somehow they are "flawed", or have lost some abilities that they should have had.

Children with LD or ADHD may be urged to perform, told to stop being lazy, and punished for their lack of success by poor grades or restrictions within the school setting. ADHD and learning disabled children could develop a sense that much of what happens in school to them is not fair (Dodge & Richard, 1985). They also may feel overwhelmed, and demonstrate "learned helplessness" (Dweck, 1975; Jacobsen & Lowery, 1986; Licht, 1983; Thomas & Pashley, 1982). With such negative experiences, the learning disabled student who perceives his or her parents as aligning themselves with the school may feel abandoned. Anger problems could be common among learning disabled individuals, especially in those who become involved with the court system.

Angry feelings may combine with acting before thinking to lead to aggressiveness. Acting before thinking has been identified as a major problem both by the adult learning disabled and those who deal closely with them (Hoffman, et al., 1987). Learning disabled adults in a stressful situation may have difficulty in controlling impulsive and socially inappropriate responses, which further heightens the likelihood of aggressive behavior and court involvement.

Anger control programs and research with ADHD and offenders. Hinshaw, Henker and Whalen (1984) investigated the effectiveness of cognitive-behavioral anger control training with hyperactive boys. Although the results of their first study suggested greater self-control as a result of training, there was no control group. Subjects for the second study were 24 boys aged 8-13, also with a primary diagnosis of hyperactivity, hyperkinesis, or attention deficit disorder with hyperactivity. Cognitive behavioral elements from self-control training and stress inoculation included training in (a) the recognition of anger triggers and arousal symptoms to cue the use of problem-solving strategies, (b) the use of interpersonal problem solving, and (c) the implementation of

self-control strategies to cope with provocation. Provocation situations were used to assess self-control and coping skills. Control children received role-taking and empathy instruction. Although control boys showed some gains in purposeful, alternative behaviors, those who received cognitive-behavioral training used significantly more deliberate coping strategies and also showed significantly better self-control. Hinshaw, Henker and Whalen suggested that gains made by the control group could be explained by their opportunity to observe treatment boys during posttest sessions.*

Feindler's 1979 investigation (Feindler & Fremouw, 1983) dealing with the angry and aggressive behaviors of delinquents found that "self-monitoring and cognitive-behavioral modification techniques were effective in reducing both the frequency and intensity of aggressive, explosive behavior". Feindler and Fremouw also reported an increase in the frequency of more severe behavioral incidents during the self-monitoring period, which preceded the anger control program. Feindler attributed this increase to the attention focused on such episodes and "the lack of more appropriate coping responses to aversive stimulations". Such circumstances could suggest a need to provide coping strategies simultaneously with self-monitoring.

Feindler, Marriot, & Iwata (1980) investigated anger control techniques with delinquent adolescents in a junior high school, and proposed two hypotheses for behavioral deficits in delinquents, the first being an actual skill deficit, and the second, a performance deficit. A performance deficit could result if emotional arousal interfered with the demonstration of social skill. The intervention used by Feindler et al. was aimed at (a) suppression of aggressive responding through its replacement by appropriate responses, and (b) achievement of self-control through problem-solving, self-instructions, modification of covert mediators, self-evaluation, and "thinking ahead". Feindler et al. found that their anger control program had greatest impact on low-frequency, high-severity aggressive behavior. They found anecdotal support for the use

of self-instruction and thinking ahead. Their study design, however, did not rule out the possible influence of changes in staff behaviors.

Feindler and Fremouw (1983) summarized the research of Feindler, Latini, Nape, Romano, & Doyle (1980) who implemented anger control training both with the staff of a residential facility and its aggressive adolescent inmates. This program made use of Meichenbaum's three phases for stress inoculation. Reductions were found in on-ward conflicts, but less effect was seen in the school setting, suggesting the lack of generalization of skills.

Learning disabled offenders are likely to have utilized angry responses to mitigate or deny painful aspects of their experiences. Individuals with ADHD and offenders have responded positively to programs that were designed to decrease angry, aggressive behavior and develop self-control. An anger control program is likely to contribute to the rehabilitation of the learning disabled offender.

Moral Reasoning, Moral Education, and Moral Behavior with Learning Disabled Offenders.

The need for moral education. That offenders should learn to engage in behavior demonstrating respect for societal needs cannot be questioned. Duguid (1981) viewed unlawful behavior as a problem of deficient moral reasoning: "Men who reason that theft is not a moral question, but only one of risk and consequence, will always take the risk" (p. 142). Consequently, raising the level of ethical knowledge and moral reasoning, and facilitating critical thinking skills are considered by Duguid as central concerns in prison education programs. Exposure to instructors as models, and experience with conflict and the resolution of conflict are thought to be essential. Duguid reported significantly less recidivism among criminals exposed to such a program, compared to those who were not participants. Within the group that received moral education, 15% were re-incarcerated during the three year follow-up period, while 48% of nonparticipants were reincarcerated.

Follow-up of an earlier group supported these results. Duguid attributed these differences to changes found in the "inner context" of decision-making that led to different behavior. The educational program in this case provided a broad spectrum of experiences, of which moral education made up only one part. Also, the program incorporated higher level education, and thus may have drawn a select group of students, perhaps those with higher intelligence. Although the control group was "matched", the elements on which they were matched were not specified. Thus it is unclear what contribution moral education might have made to lower recidivism in these studies.

Arbuthnot and Gordon (1983) agreed that, although situations undoubtedly influence criminal acts, it is a realization of the moral nature of behavioral choices that deters the commission of a criminal act, and that lack of moral reasoning skills contributes to antisocial behavior. They recommended the inclusion of moral education in correctional programs. However, their line of reasoning did not appear to take account of impulsivity, commonly found in offenders, nor of many of the other factors that may hinder or contribute to ability to demonstrate moral behavior.

Rest (1986) proposed a model of four basic psychological processes that facilitate moral behavior: (a) the ability to interpret a particular situation in terms of what actions are possible, who will be affected by various courses of action, and how the interested parties would regard such effects on their welfare; (b) the ability to make a judgment about which course of action is morally right or fair, thus labeling one possible line of action as what a person morally ought to do; (c) the ability to prioritize moral values above other personal values such that a decision is made to intend to do what is morally right; (d) the ability to demonstrate sufficient perseverance, ego strength, and implementation skills so as to follow through on the intention to behave morally, to withstand fatigue and flagging will, and to overcome obstacles. The influence of such processes on the production of moral behavior has implications for development of law abiding behavior in learning disabled

offenders, who may have characteristics that tend to limit their skills in one or more of these psychological processes.

Moral reasoning programs and research with LD and offenders. Few studies have examined the moral reasoning of learning disabled individuals. Fincham (1977) cited the connections between learning disabilities, emotional problems, conduct disorder and deficit role-taking abilities. He used Kohlberg-type moral judgment stories in examining the moral reasoning abilities of learning disabled children compared to normally achieving children. Twenty-eight 8 and 9 year old learning disabled boys were equated for age, IQ, and socioeconomic status with 28 normally achieving peers. No significant group differences were found on the moral maturity of responses. Fincham suggested that the behavior problems often associated with learning disabilities may not be due to impaired moral reasoning. However, delays in appropriate moral judgment also may not be fully evident until adolescence, as the relationship between moral judgment and moral conduct increases with age. Fincham proposed that differences in moral reasoning might be found by comparing learning disabled adolescents to normally achieving peers.

Bear and Richards (1981) assessed the level of moral development of 32 boys and 28 girls in the sixth grade, using Kohlberg's interview. Children were rated also by their teachers on classroom conduct. Results supported their hypotheses that children using lower stages of moral reasoning would display more conduct problems than those reasoning at higher levels. They also found that children who reasoned at lower levels showed more variability in their conduct ratings, suggesting that situational factors are more potent in determining behavior at lower levels of moral reasoning.

Whalen, Henker and Granger (1990) conducted a study examining the social judgment of hyperactive boys while they evaluated the videotaped behavior of hyperactive peers. Peers, who were the target of observation, were seen either in methylphenidate condition or in placebo condition while engaged in several interactional game settings.

Further, the hyperactive boys judging peer behaviors themselves were either in methylphenidate or placebo condition. Rather than showing a deficit in their ability to identify undesirable behaviors in their peers, hyperactive boys targeted more negative behaviors in hyperactive peers than were targeted by normal boys, regardless of their own medicated condition. The boys with the most serious behavior problems tended to identify the greatest number of negative behaviors, especially when they themselves and the observed child were unmedicated. Negative behaviors appeared more salient to these hyperactive children than positive behaviors. Whalen, et al. concluded that these hyperactive boys appeared at least as socially discerning as their normally achieving age-mates.

Derr (1986) used Kohlberg's moral judgment interview to investigate the moral reasoning levels of learning disabled adolescents compared to average achieving adolescents. She found that the learning disabled group did show less evidence of being able to view moral dilemmas from a community or societal perspective, which was the more mature level seen with greater frequency among their normally achieving peers. These learning disabled adolescents exhibited a substantial amount of reasoning from an egocentric perspective, focusing on their own needs and desires.

Rest (1985) found that delinquent boys and prison inmates obtained Defining Issues Test scores (18.9 and 23.5) that were lower than any other of 16 groups of individuals, with the exception of junior high school students. The range of scores for all groups was from 18.9 to 65.2.

Nelson, Smith and Dodd (1990), conducted a meta-analysis of 15 studies that examined the moral reasoning of juvenile delinquents. They concluded that results were supportive of the hypothesis that the moral reasoning of juvenile delinquents is immature.

Arbuthnot and Gordon (1983, 1988) had come to the same conclusion regarding immature moral reasoning both in juvenile delinquents and adult offenders.

Moral judgment may develop in response to the dilemma discussions, as Kohlberg believed. Using two forms of dilemma discussion or no treatment with 30 male and 30 female incarcerated juvenile delinquents, Gibbs, Arnold, Ahlborn, and Cheesman (1984) were able to move 87.5% of those initially at Kohlberg's stage 2, a pre-conventional level, to stage 3 when using dilemma discussion. Only 14.3% of the no-discussion control subjects made a similar move over the two month period separating pre and posttest.

MacPhail (1989), working with adult male inmates over a seven month period, also found that levels of moral judgment could be raised, as could levels of ego development. MacPhail used a three-phase educational program, which included facilitating of social perspective taking skills through role-playing of counseling skills, and real life dilemmas presented by guest speakers, as well as discussion of hypothetical dilemmas.

In his review of 12 studies that attempted to relate moral reasoning either to specific behaviors or to habitual actions in real life, Blasi (1980) found empirical support for the centrality of moral judgment in moral behavior, for example, delinquents consistently were found to be at lower stages of moral reasoning. However, in agreement with Rest, Blasi decided that deficient moral reasoning alone could not explain delinquent behavior.

Summary. Although much remains to be confirmed in theories of both moral reasoning and moral behavior, moral reasoning is seen as a necessary, but insufficient, basis for moral behavior. Inconsistent results have been obtained when examining the maturity of moral judgment with learning disabled or ADHD children. Not surprisingly, delinquents have been found, as a group, to show lower levels of moral reasoning than nondelinquents. Education in moral reasoning has been advocated and implemented in educational settings and in correctional programs, in spite of the lack of conclusive

evidence that higher levels of moral reasoning result in moral behavior. Moral education may contribute to the rehabilitation of offenders and others whose behavioral choices are antisocial, but the exact processes involved in translating moral judgment to moral behavior need further investigation.

Learning Disabled Offender Characteristics Related to Program Needs

Learning disabled individuals may tend to develop specific maladaptive cognitions, attributions, and behaviors that hinder the development of socially skilled behavior, anger control and moral decision making. Such maladaptive cognitions, attributions, and behavior also have implications for the design and implementation of appropriate rehabilitation.

Attributions, learned helplessness and self-esteem. Attributing control to external, stable and uncontrollable factors may directly interfere with the assumption of personal responsibility for behavior, because the individuals see themselves as powerless to make choices. Such external attributions probably contribute to the evolution of learned helplessness. According to Hall & Lindzey (1978), Seligman theorized that learned helplessness is a reaction that may be acquired when an organism decides that nothing can be done to escape or ward off aversive events. The result of learned helplessness is emotional disruption, decreased motivation and a cognitive deficit, which may affect subsequent problem solving. Hall and Lindzey proposed that external individuals, who attribute control to factors outside of themselves, are more likely to become helpless after being exposed to inescapable noxious events when compared with individuals who internalize power. Lack of cause and effect between events or a perceived lack of cause and effect also may contribute to learned helplessness and an ineffective response. Fincham and Cain (1986) noted that a situation of objective noncontingency may lead to perceived noncontingency, then to an attribution for noncontingency, and an expectation

for future noncontingency, resulting in behavior deficits. Such behavior deficits may be seen even in situations that actually might be controllable.

Studies reviewed by Borkowski, Johnston, and Reid (1987) supported the idea that disabled learners' early school failures lead them to doubt the effectiveness of effort in learning tasks. Licht (1983) also suggested that the frustrating experiences of learning disabled children were likely to lead to maladaptive achievement-related beliefs, including learned helplessness. Research by Luchow, Crowl and Kahn (1985) noted that emotionally handicapped children took significantly more personal responsibility for academic failure than did learning disabled/emotionally handicapped children. Such learning disabled children see themselves as having low ability, and therefore powerless to better their school performance. Jacobsen, Lowery and DuCette (1986) compared the attribution patterns of children with and without learning problems, also finding that LD children attributed success more externally than did normally achieving children. Children who are convinced of their own low ability are likely to attribute success to external factors, such as good luck or an easy test. Such external success attributions are unlikely to enhance a child's feelings of self-esteem, self-efficacy, or motivation to work harder.

Especially where learning disabilities and offending status coincide, learned helplessness may impede the assumption of personal responsibility for moral reasoning and moral behavior. Looking at the attributional style of offenders, Fondacaro and Heller (1990) found a tendency to attribute blame for problems in ambiguous interactions to global, dispositional characteristics of others. This tendency was associated with aggressiveness. Blaming others also might heighten frustration, and impair motivation to control an angry response. Anger, in turn, increases the likelihood of unskilled behavior. Similar findings were reported by Guerra, Huesmann, and Zelli (1990), although they noted that delinquent subjects varied widely in their level of aggression. In examining the

peer relations of aggressive children, Dodge and Richard (1985) postulated a model emphasizing the reciprocal influence of hostile attributional biases and deficit problem solving. Learned helplessness, hostile attributions, deficit problem solving and aggressiveness are very likely to be negative influences on interpersonal behavior and moral decision making.

Noncompliant behavior. Noncompliance may begin with some children before school entry, depending upon the interaction of the environment with a specific handicap. Children or adults with learning disabilities may appear noncompliant because of verbal or nonverbal information processing deficits. Learning disabled individuals may not comprehend oral directions, or may have difficulty learning procedures, even after they are demonstrated repeatedly. Such difficulties can lead parents and teachers to comment "She just doesn't listen", or "I've shown him what to do a million times! He just won't do it." Willful disobedience may be imputed when lack of understanding or ability is the real culprit. Attention deficit-hyperactivity disorder, with its impulsivity and high activity level, may cause some preschool children to be regarded as incorrigible. Early experiences may lead both LD and ADHD children to become anxious or develop the self-attribution of "bad child", impacting their disposition towards future compliance.

The noncompliance, or conduct problems, observed in many learning disabled school children (Taylor, 1989; Taylor, Adelman, Newlson, Smith & Phares, 1989), may be an attempt to avoid humiliation. Covington and Omelich (1985) found that high effort, mediated by a cognition of inability, led to feelings of humiliation. Their study found that failure-oriented individuals, with a self-concept of low ability, more readily perceived failure as evidence for their inability. Certain knowledge of their own low-ability status was likely to increase feelings of frustration and humiliation, compared to when individuals were uncertain about their abilities. Inferences can be drawn regarding the frustration and humiliation experienced both by learning disabled individuals and those

with ADHD when faced with inability to comply with the usual academic and behavioral classroom expectations. Learning disabled or ADHD individuals may prefer to say "I won't", rather than to reveal "I can't". The evolution of noncompliant behaviors within the classroom may contribute to a tendency to choose behaviors outside the classroom that do not conform to societal expectations.

Role taking abilities. Role-taking ability allows an individual to imagine themselves in the place of another, intellectually, emotionally or perceptually in the physical world. Such perspective taking may be particularly crucial in enabling and motivating prosocial behaviors.

Role-taking ability may be impaired in learning disabled children in a manner similar to those who are mentally retarded. Perry and Krebs (1980) found that mentally retarded adolescents scored significantly lower on role-taking ability and moral development than adolescents matched for chronological age. These investigators believed that both impoverished social experience and deficiencies in role-taking put constraints on the interpersonal encounters of the mentally retarded. The role-taking deficit led to a failure to modify behavior in anticipation of another's response, resulting in an altered social experience. Thus, socially immature or awkward behavior by mentally retarded individuals may elicit atypical reactions from others, producing significantly different social experiences. In a circular fashion, these different social experiences do not facilitate appropriate cognitive and social development. Perry and Krebs postulated similar patterns of functioning in moral development, concluding that cognitive development is a necessary condition for moral development, both as a prerequisite for social and moral reasoning, and because it influences social input.

Dickstein and Warren (1980) compared the cognitive, affective and perceptual role-taking skills of 38 learning disabled children, aged 5-8 years, with controls. They found that learning disabled children scored significantly lower on various tasks than their

normal peers. Dickstein and Warren also found that learning disabled children ages 9 and 10 scored no better than those who were 8 years old.

Pearl (1987) reviewed various studies related to the social perspective taking skills of learning disabled children. Some studies, such as Dickstein and Warren (1980) supported the likelihood of lower cognitive, affective and perceptual role-taking abilities among learning disabled children. Others found no differences or that some differences disappeared when IQ effects were controlled. In one study, gender differences were identified, with LD girls being even less successful in role-taking than LD boys. Some research with learning disabled versus controls found differences in referential communication abilities and tactfulness, both of which have implications for role-taking abilities. Inconsistencies suggested the need for further research, but overall results did indicate that role-taking skills may be of concern with some learning disabled individuals.

Goldstein and Goldstein (1990) evaluated whether attention-deficit hyperactivity disorder symptoms may produce cognitive-mediational deficits that affect social perspective taking ability and the formulation of attributions. They found that the research to date regarding specific factors was inconclusive, particularly as to elucidating whether social cognitive processing deficits lead to, result from disturbed social relations, or may represent a common, underlying mechanism such as inattention or impulsiveness. However, Goldstein and Goldstein believed that cognitive mediational deficits, such as impaired role-taking abilities and negative attributional biases, have a substantial impact upon behavior with ADHD children.

Chandler (1973) measured and attempted to remediate deficits in the role-taking skills of 45 chronically delinquent boys. He found a significant difference in the role taking abilities of delinquent subjects compared with the 45 nondelinquent subjects, some of whom came from the same high crime rate areas as the delinquents. The treatment group, which made videos as vehicles for helping them to see themselves from the

perspectives of others, demonstrated a significant reduction in recidivism at 18 months followup, compared with a control treatment group, which made unrelated videos, and a nontreatment group.

Little and Kendall (1979) reviewed studies of delinquents' social perspective taking abilities. They concluded that role-taking deficits consistently have been identified as common among abnormal groups of children, including emotionally disturbed, retarded, institutionalized, and noninstitutionalized delinquents. If, in fact, role-taking abilities contribute to skilled personal interactions and to moral development, and these contribute to moral behavior, both learning disabled and offenders may benefit from experience in role taking.

Problem solving skills. In a comparison of depressed, conduct-disordered and normal adolescents, Joffe, Dobson, Fine, Marriage & Haley (1990) found that conduct disordered adolescents had significantly poorer problem solving skills than either depressed or normal age peers. Specifically, conduct disordered individuals generated fewer means to a social end, anticipated fewer obstacles in the pursuit of solutions to interpersonal situations, and generated fewer assertive behavioral solutions to difficult social situations. Joffe, et al. hypothesized that conduct disordered individuals show a behavioral sequence beginning with (a) an impulsive response, accompanied by the lack of anticipation of obstacles; (b) the subsequent experience of frustration when achieving a goal is blocked; and ending with (c) aggressive behavior when an assertive response is not available.

Lee and Prentice (1988) studied a group of delinquent and nondelinquent adolescents' problem solving abilities in situations calling for empathy, role-taking, cognitive problem solving and moral dilemma resolution. Delinquents had significantly more immature modes of role-taking, logical cognition and moral reasoning. No difference was found with empathy.

IQ levels. Level of intelligence affects ability to benefit from education. Theorists such as Campione, Brown and Ferrara (1982) have cited a considerable body of research to support their view that "speed or efficiency of learning and breadth of transfer are central to any notion of intelligence" (p. 472). Such a position implies that higher IQ individuals may learn from social skills training more efficiently and demonstrate more generalization of behavior than lower IQ trainees. The IQ levels of learning disabled offenders may impact ability to benefit from a rehabilitative program such as ART.

The definition of learning disabilities specifies intellectual abilities above the mentally retarded range, because mental retardation is a basis for exclusion from the category. The IQ scores of learning disabled individuals range from below average to well above average. However, groups of children identified as having learning disabilities have been found to contain disproportionate numbers of lower IQ students (Burns, 1984; Furlong & Yanagida, 1985, McNellis, 1987; Tindal & Marston, 1986). Lower IQ learning disabled may be referred and tested more often than higher IQ learning disabled, and, when tested, they may be more likely to be identified as learning disabled than those with higher cognitive potential. On the other end of the spectrum, Whitmore and Maker (1985) have identified intellectually gifted individuals with learning disabilities.

Rutter and Giller (1984) noted the existence of a substantial body of research showing a consistent association between low IQ and increased risk of delinquency. The correlation low IQ and increased risk of delinquency was not just a reflection of race or social class, and was stronger than the correlation of race or social status with delinquency. Lewis (1985a & b) also observed that both delinquents and adult criminals demonstrated lower than average IQ scores, often between 70 and 85. In a sample of 758 inmates from a prison population, Bell, Conard and Suppa (1984) found the average Full Scale WAIS-R IQ score to be 86, almost one standard deviation below the mean.

Caucasian inmates ($N = 307$) had a full scale IQ score of 92.2, $SD = 13.8$, while minority inmates ($N = 451$) obtained a full scale IQ score of 82.1, $SD = 9.3$. Bell, et al. found that at least 42% of the inmates were "learning deficient", and obtained an IQ score of 77.8, $SD = 7.0$. Eighty-two percent of those with learning deficits had indications of specific learning disabilities. Those who were not "learning deficient" obtained an IQ score of 92.1, $SD = 12.9$. Bell et al.'s statistics may not be equally applicable for misdemeanor offenders in the district court system, but some similarity is possible. Misdemeanor offenders may be convicted of more serious infractions on other occasions, resulting in prison terms.

Limited financial resources and socioeconomic status. Treatment programs for learning disabled offenders may need to take account of their limited financial resources, if clients primarily are of lower socioeconomic status (SES). In their sample of self-referred learning disabled adults, Johnson and Blalock (1987) found that socioeconomic levels ranged from upper-lower to lower-upper class, with the majority being middle class. Of course, self-referral to a private clinic might presuppose the availability of some financial resources, although some low income clients may be served on a reduced or no-fee basis. In a follow-up study of special education students who had left the public school system between 1976 and 1984 at ages 19-21, Edgar and Levine (1987) found that 25% of 827 learning disabled or behaviorally disordered students reported absence of any activity, such as attending postsecondary education or involvement in some sort of training program. This 25% of the LD/BD group was compared with only 6% of their nonhandicapped peers who reported absence of any such activities. However, for those former students who were working, learning disabled individuals appeared to be earning in approximately the same wage categories as their nonhandicapped peers (Edgar & Levine). Thus, the typical socioeconomic status of young learning disabled adults appears somewhat unclear, but the higher percentage of LD/BDs who reported the

absence of age-appropriate activities suggests that many may be in lowest SES categories for their age, if based on their own income levels. Also, individuals with learning disabilities may change jobs more frequently or may not advance in their employment at the same rate as non-handicapped peers.

Silberman (1978) expressed no doubt that violent criminals emerge disproportionately from the lower economic classes, tracing this at least in part to the "almost unbearable tension between the ideal and the reality" (p. 157) for such individuals. However, Hindelang, Hirschi, and Weis (1981) found that, despite attempts to identify conclusively important correlates of juvenile delinquency, including socioeconomic status of the parent, there were wide swings of opinion in this area, with many questions unresolved.

A review of the association between socioeconomic class and delinquency was provided by Rutter and Giller (1984). They concluded that:

The evidence suggests that there is a modest (but not strong) association between low social status and delinquency, but that this association applies mainly at the extremes of the social scale, that it is due in part to social class differentials in detection and prosecution, and that, in so far as it applies to real differences in delinquent activities, the association is largely confined to the more serious delinquencies. (pp. 136-137)

Although investigators have suggested that offenders will tend to come from the lower socioeconomic ranks, it is unclear to what extent such a trend may apply to young adult learning disabled offenders. Keilitz and Dunivant (1987) reported a longitudinal study in which learning disabled white youths from families with more parental education and occupational prestige experienced relatively larger increases in delinquent behavior than other subgroups of learning disabled. Tittle & Meier (1990) concluded that sometimes socioeconomic factors predicted delinquency and sometimes it did not. They

recommended a disaggregation of the social class concept as a predictor variable into more precise predictors, which might include "values, bonding, peer structure, relative deprivation, community social climate, attitudes, and others" (p. 295).

Alcohol/drug abuse. The frequent coexistence of Attention Deficit-Hyperactivity Disorder (ADHD), offending behavior, and substance abuse has been recognized (Bukstein, Brent and Kaminer, 1989; Cloninger, Sigvardsson, & Bohman, 1988). Learning disabilities may be included in this constellation of problems, both as it relates to ADHD, and without ADHD. A list of resources for disabled persons with substance abuse problems (Office for Substance Abuse Prevention, July 1988), included 7 facilities serving all kinds of handicapped, with 3 specifically stating that they served the learning disabled abuser.

Dunivant (1982) found that juvenile delinquents with learning disabilities were more likely to have used alcohol and marijuana than delinquents without learning disabilities. Hoffman and Harrison (1988) discovered that 28% of youth in treatment for chemical dependency had learning disabilities, and 34% of these adolescents in treatment had felony convictions, multiple arrests, or jail sentences. Hoffman and Harrison did not specify the overlap between learning disabilities and delinquency.

Monahan (1981) cited evidence that 60% of a prison inmate group committed their offenses while under the influence of alcohol, drugs, or both. Sternberg (1989) found that 46 out of 198 substance abuse patients, or 23%, had a diagnosis of Attention Deficit Disorder. Fifty-seven percent of these ADD patients also were diagnosed as having Antisocial personality disorder. Rhodes and Jasinski's (1990) sample of 25 male alcoholics (mean age = 41.1, SD = 10.8) contained 60% who met one or more criteria for learning disabilities. Comparison of the learning disabled group with the remainder of the sample suggested that the discrepancies between potential and achievement were not due to alcohol abuse effects.

As has been seen, one of the primary connections between learning disabilities and both chemical dependency and criminality may be through Attention Deficit-Hyperactivity Disorder. Ralph and Barr (1989) cited evidence that there is likely to be a positive relationship between chemical dependency and learning disabilities, but found a more solid basis in the current research for the relationship between such dependency and ADHD with conduct disorder. Spreen's (1988) investigations came to the same conclusions, finding that learning disabled children who were high on the Attention Deficit Syndrome (ADS) dimension tended to use "more street drugs, had more problems with alcohol, and reported a higher degree of delinquency than low ADS participants at the age 19 follow-up" (p. 118). Trends persisted at age 25, but most no longer were statistically significant. Tarter and Edwards (1988) also found that a high activity level was associated with drug use severity.

Familial factors, both genetic and nongenetic, may be implicated in the coexistence of learning disabilities, ADHD, substance abuse and criminality. If there can be a genetic component to learning disabilities (Smith, Kimberling, Pennington, and Lubs (1983), and a genetic component to ADHD and alcoholism (Tarter and Edwards, 1988), inherited tendencies could increase susceptibility to any of the three conditions, either alone or concordantly. Each could exacerbate the effects of the other. Research by Idol-Maestas (1981) identified family alcohol problems as the best predictor of membership in a language deficit and hyperactive group. Family hyperactivity also was a predictor for this group. Lambert and Hartsough's (1984) findings were similar.

Ervin, Little, Streissguth and Beck's study (cited in Tarter & Edwards, 1988) showed that the sons of alcoholic fathers and normal mothers did not score as well as the sons of nonalcoholics on a standardized test of academic achievement. Various other studies reviewed by Tarter and Edwards suggested equivocal results as to the intellectual scores of children of alcoholics compared with nonalcoholics, but found delayed

academic performance to be common. Tarter and Edwards concluded that it remains to be shown whether or not genetic factors underlie the cognitive deficits found in the offspring of alcoholics, although genetics does appear to influence intellectual functioning.

However, parents' alcoholism did dramatically increase their sons' risk of alcoholism.

Fetal alcohol effects (FAE), from maternal ingestion of even moderate amounts of alcohol, may result in depressed IQ scores, academic delays and many maladaptive behaviors similar to those found with ADHD. (Streissguth, Barr, and Sampson, 1990; Streissguth, et al., 1991). Nevertheless, individuals with FAE may have IQ scores within the normal range (Shaywitz, Cohen, and Shaywitz, 1980; Streissguth, et al., 1991). Streissguth, et al. (1990) noted that arithmetic skills may be particularly deficient in such youngsters compared with normal controls, even when the effects of covariates are considered. The profile of average cognitive functioning and severely discrepant academic achievement is likely to be diagnosed in the school setting as learning disabilities, unless behavior problems appear to be primary.

One further avenue of familial substance abuse influence on learning problems or ADHD could be an addictive parent's physical abuse of a child, resulting in neurological impairment (Fontana, 1985). If the damage is subtle, consequent learning and behavior problems could be diagnosed as learning disabilities. The effects of the neurological impairment could combine with the behavior modeled by the parent and an inherited tendency towards alcoholism to heighten the likelihood of adult substance abuse in an individual who initially had demonstrated learning disabilities. The overlap of substance abuse problems with learning disabilities, ADHD, and offending status has been seen as a mandate for the modification or expansion of substance abuse treatment approaches, including the addition of social skills training (Barr, 1989; Bond, 1986; Rhodes & Jasinski, 1990; Sternberg, 1989; Zweben & Smith, 1989).

Characteristics of the learning disabled offenders that underlie interpersonal difficulties and immature moral decision making also have implications for the development of appropriate rehabilitation. Interventions will need to address the effects of maladaptive attributions and problem solving skills, impaired cognitive functioning, limited financial resources, and substance abuse. Aggression Replacement Training may provide a useful complement to other treatment measures, such as substance abuse programs, for learning disabled offenders.

Summary and Implications

The social skills and anger management components of Aggression Replacement Training have been shown to build interpersonal skills and the ability to cope with stress and anger. Research also has indicated that moral reasoning levels can be raised; however, the effect of more mature moral judgment on behavior is not well substantiated. Incorporating all three components, Aggression Replacement Training (Goldstein, et al., 1987) has demonstrated positive effects with offenders undifferentiated as to their learning style. However, its ability to reduce recidivism with learning disabled offenders has not been investigated, nor has research focused on the contribution of the moral education component to the positive outcome with offenders.

The identification of learning disabilities in offenders faces various definitional and diagnostic hurdles, which include the overlap with behavior disorders and attention deficit-hyperactivity disorder. Various studies have reported improved functioning in learning disabled and offenders as a consequence of participation in social skills training, anger control programs or moral education. Such treatments may address learning disabled offenders' common characteristics, such as maladaptive attributions, low self-esteem, noncompliant behavior, deficient problem solving skills, and impaired cognitive processes. As well as expanding its response to such characteristics, successful

rehabilitation also may need to take account of weak academic skills, limited financial resources, and substance abuse problems.

Aggression Replacement Training, implemented in a manner that is sensitive to the information processing styles and behavioral needs of learning disabled offenders, could provide a community based intervention that is effective in reducing recidivism. Given limited resources, however, the contribution of moral education/dilemma discussion to this effectiveness should be examined. Dilemma discussion, unlike social skills and anger control, draws solely upon verbal interactions. The verbal processing and language deficits of individuals with learning disabilities could interfere with their ability to benefit from dilemma discussion.

Offenders should be classified, and rehabilitation programs designed, according to offenders' behavioral characteristics (Chaiken and Chaiken, 1983; Erickson, 1987; Snarr, 1987). The effectiveness of ART in reducing recidivism with learning disabled offenders in a community setting, either in its original version, or in a modified form, has implications for the personal adjustment and rehabilitation of learning disabled offenders, the enhancement of public safety, and the economics and the design of offenders' treatment programs.

CHAPTER 3

Data Collection - General

This study compared the ability of two versions of Aggression Replacement Training (ART) -- dilemma and nondilemma -- to reduce tendency toward recidivism in two groups of young male adult learning disabled offenders. The investigation also compared recidivism from each ART group with a control group.

The first version of Aggression Replacement Training used in this study was the dilemma version, which included all three components -- social skills, anger control and dilemma discussion -- within a weekly, two hour long format for 14 weeks. The second, or nondilemma version, included social skills and anger control, combined with an additional segment of social skills training for a time period equivalent to that spent on dilemma resolution with the first group.

Tendency towards recidivism was measured by pretest and posttest with the Weekly Activity Record (WAR, Jenkins, Muller, DeVine, deValera, Witherspoon, and McKee, 1974, Appendix A). Actual recidivism was measured by charges in the district court records for King County.

Research Hypotheses

The principal hypotheses of this study were that:

- (1) Subjects who received the dilemma version of ART would demonstrate a significantly greater reduction in tendency toward recidivism when compared with subjects who received the nondilemma version.
- (2) Subjects who received either version of ART would demonstrate a significantly greater reduction in actual recidivism when compared with control subjects.

Dependent Variables and Measures

Tendency towards recidivism/The Weekly Activity Record (WAR)

The first dependent, or outcome variable in this study was tendency toward recidivism, as measured by the Weekly Activity Record (Jenkins, et al., 1974). The Weekly Activity Record, given as a pretest and a posttest, was developed and validated for the analysis and prediction of criminal behavior and recidivism. Eighteen items recorded the number of hours devoted to various activities weekly. Patterns of activities in those individuals with the most and least criminal behaviors were validated using the Law Encounter Severity Scale, according to Jenkins et al. To provide one score from both negative and positive items, Jenkins and his associates designed a 0-1 scoring system, so that positive items above average are scored "0" (adaptive) and negative items above average are scored "1" (maladaptive). With this system, a low score indicated less tendency towards recidivism. The Weekly Activity Record was scored as recommended by Jenkins et al. The neutral items, #2 and #15, were scored as positive, and #13 was scored as negative, as noted in Brodsky and Smitherman (1983).

Time spent on different types of activities during the week, as measured by the Weekly Activity Record, was found to be highly predictive of law encounters, criminal behavior and recidivism as measured against actual records (Jenkins, et al., 1974). Test-retest reliability based upon measurements at 3 - 6 months and 12 -15 months for 114 subjects was reported as .93. Inter-rater reliability was found to be .96.

Recidivism/King County District Court Records

Actual recidivism, the second outcome variable, was measured by a six month followup of charges recorded within the King County District Court system. King County District Court records are published on microfiche, which is open to the public. These records indicate charges, but not dispositions of charges. The preprogram level of

charges within the district court system, beginning in 1979, was available for comparison with the postprogram level of charges, based upon a six month followup.

Preprogram or presentencing offense averages were obtained by taking the total amount of time from an offender's first district court charge on record up to his most recent charge previous to sentencing or completing the program, dividing it into six month segments of time, and figuring the average number of charges per six month period. For example, an offender who had 20 charges over a period of 5 years would have an average of 2 per six month period. Postprogram or postsentencing figures are the actual number of charges entered in the district court records during the six months following program completion or court sentencing.

Moderator Variables and Measures

Planned analyses included examination of social skills development and anger disposition within the program subjects. Socioeconomic status, levels of intelligence, and previous educational diagnostic status data also were collected to investigate in relation to program outcome.

Social Skills Development/The Direct Situations Test

The Direct Situations Test (Goldstein et al., 1987, Appendix B), with slight modifications appropriate to these somewhat older, nonincarcerated subjects, was used to measure social skills development. Goldstein et al. provided no data for the reliability and validity of this test. Because scoring of the situations tests depended upon the accuracy of the person who was writing down the answers, almost one-third (24 out of 78) of the protocols also were recorded on audiotape. The written transcription was reviewed while listening to the recording. Matching 24 audio-tape situations protocols against the written answers produced only four additional points out of a total of 3,151 points scored. Accurate written recording of the essential points of clients' oral responses was suggested by this small difference.

In scoring situations protocols, one point was given for the inclusion of a step for a particular skill, according to the steps delineated by Goldstein et al. (1987). Because judgment sometimes was necessary in deciding if a particular step was included in a response, protocols were scored with pretest and posttest side by side to facilitate consistency of scoring decisions. Thus, if a similar element were found in both responses in reference to a particular step, this similar element was given the same scoring both for pretest and posttest. Also, it became clear when a particular element was present in one response and not another. And if a step was not sufficiently explicit, and was repeated in the same manner at posttest, the scoring was consistent from pretest to posttest. The researcher scored all protocols.

Anger Disposition/The Brief Anger/Aggression Questionnaire (BAAQ)

The anger disposition measurement, the Brief Anger/Aggression Questionnaire (Maiuro, Vitaliano and Cahn, 1987, Appendix C), is a six item self-report screening instrument that correlated significantly ($p = .78, p < .001$) with the seventy-five item Buss-Durkee Hostility Inventory. Test-retest reliability was .84. Research by Maiuro, et al. compared BAAQ scores of treatment individuals with the waiting list control sample and found that post-training scores for the treated group differed significantly from those of the control group, although pre-training scores had not been significantly different. Such data suggested that the BAAQ is able to reflect change in anger/aggression disposition. A cutoff score of 9 was proposed as reflecting anger dyscontrol problems with a fair degree of confidence, but caution was recommended in the interpretation of lower scores. A criterion validity study by the same investigators found that "an appreciable number of subjects from the violence-prone sample were missclassified into the nonviolent category" (p. 172).

Client Characteristics

Socioeconomic status. Moderator variables to be examined in this study included socioeconomic status, IQ level, and previous educational diagnosis. Socioeconomic status has been found in the past to correlate with offender status. Duncan's socioeconomic index (Duncan, 1961) rates occupations from 0-99, and from the first to the tenth decile. The decile scale indicated the distribution of the socioeconomic index in the population of workers. For example, according to Duncan, farmers comprised almost the entire 3rd decile.

IQ Scores. The vocabulary, similarities and block design short form of the Wechsler Adult Intelligence Scale - Revised (WAIS-R, Wechsler, 1981) was chosen as the measurement of intellectual potential to be used in this study. Short form scores were transformed into a Wechsler-type Deviation Quotient (Sattler, 1988). Like full scale IQ scores, short form WAIS-R prorated IQ scores have a mean of 100, and a standard deviation of 15.

When discussing WAIS-R short forms, Sattler (1988) recommended that clinical considerations should influence the choice of particular subtests for inclusion in the short form. In selecting the subtests to be included in the WAIS-R short form in this research, consideration was given to the combinations of subtests that showed higher reliabilities in general, and, secondarily, to avoiding subtests that have been found to be particularly low-scoring with reading and learning disabled samples. In a review of studies reporting subtest patterns for reading disabled subjects, Frank (1983) indicated the following subtests were likely to show relatively low scores -- information, arithmetic, vocabulary, digit span, and coding/digit symbol; and the following subtests were likely to show relatively higher scores -- picture arrangement, block design, similarities, and picture completion. Vocabulary, although drawing upon identified weaknesses of the learning disabled, has the highest correlation with the verbal IQ scale from among all the verbal

subtests. The potential weaknesses of this population in vocabulary was balanced with the addition of the similarities subtest.

Sattler (1988) found that vocabulary and block design subtests individually have "moderate (Block Design) and high (Vocabulary) correlations with the Full Scale, have consistently high reliabilities, and are good measure of g ".(p. 234). Sattler reported that the validity coefficient of the vocabulary, similarities, and block design short form is .92.

Previous diagnosis. Outcome differences based upon previous diagnosis also were considered possible, because evaluation criteria might identify as appropriate for the program some individuals who were low achieving for reasons other than learning disabilities. Consequently, program effects were examined differentially among those who reported a previous diagnosis of learning disabilities compared with those who disclosed receiving special help or those who said a learning disabilities diagnosis was not considered during their school years.

Identification of Program Clients

Preliminary Procedures at the Court

Prescreening activities. Many preliminary meetings were held with the administrator and the judges of the Northeast King County District Court, as well as with the supervisor and staff of the probation department. The rationale for the program and its potential for reducing recidivism were thoroughly reviewed. The feasibility of various procedures for identifying learning disabled clients was carefully examined, with the final decision that arraignment days would be the most productive for screening purposes. Further meetings with the criminal justice staff were held periodically to address misunderstandings and/or neglect to follow agreed-upon procedures.

Screening. Screening originally was limited to individuals in the age range of 21 to 35; however, several younger clients were referred by the court and accepted for testing. Screening in the court two days a week was initiated in February 1989. Knowledge of

learning disabilities in adults and a calm, confident demeanor were found to be important screener characteristics. Individuals pleading guilty were referred by the judge presiding at arraignments to the LDA screener who was at the court. The screener recommended further testing based upon self-reported learning disabilities, "dyslexia", "hyperactivity", repeating a grade in school, and having "poor" or "very poor" skills in reading, math or writing (See appendix D). Offenders also were referred for testing if their cursive writing samples contained many errors. Probation office screening was done with individuals being seen there for presentence interviews. Probation office screening produced a higher proportion of appropriate clients compared with court screening. However, demands upon screener time were excessive in that all-day availability was required in order to screen 1-3 clients per day. During the nine month period from February 1989 until December 1989, 218 men, out of 685 who were screened, were recommended for further testing. The judges mandated testing for 181 individuals out of the 218 who were recommended for evaluation.

If testing was ordered by the judge, either as a presentencing or sentencing condition, the court clerk gave the offender a map and a LDA testing appointment time as they left the court. Copies of this appointment slip were returned to the LDA office for confirmation of appointments given.

The Diagnostic Battery and Procedures

LDA testing clients were sent postcard reminders and also were phoned the day before testing. These measures improved appointment compliance substantially, as did the initiation of a \$10 fee for appointments missed without previous notification. Further background information was obtained for all clients during their testing session.

Thirty-four clients failed to keep their testing appointments in spite of reminders. Of those, four later were tested, and some others were excused from testing by the court.

Between April 1989, and March 1990, 153 men were tested, of whom 126 were recommended to the court for program participation.

With the first 20 clients, only reading achievement was tested. However, subsequent clients also were given math and written language testing. Evaluations were conducted and/or supervised by certified school psychologists, professionally qualified in the diagnosis of learning disabilities.

The diagnostic battery: WAIS-R, Woodcock Reading Mastery, Woodcock-Johnson math and written language. The diagnostic battery was composed of the most valid and reliable measurements of intellectual potential and academic achievement that could be administered within the time allowed by funding limitations. Diagnostic tests included:

1. A short-form version of the Wechsler Adult Intelligence Scale-Revised (WAIS-R), composed of the vocabulary, similarities and block design subtests.
2. The Woodcock Reading Mastery Tests-Revised, Short Scale.
3. The Woodcock Johnson Psychoeducational Battery-Tests of Achievement, Math and Written Language clusters.

The WAIS-R short form provided the measure of intellectual potential within the diagnostic battery. As noted previously, the validity coefficient of the vocabulary, similarities, and block design WAIS-R short form is .92. The Woodcock Reading Mastery Tests-Revised, Form G, short scale (Woodcock, 1987), evaluated word identification skills and passage comprehension. The Woodcock test manual reported a short scale reliability with adults of .97 for form G. Word identification skills are measured by reading word lists, and passage comprehension skills are evaluated by the "cloze" procedure, requiring insertion of the correct word in a blank. Standard scores, based upon a mean of 100 and a standard deviation of 15, are obtained for each

component subtest, as well as for the reading short scale score. The Woodcock Reading Mastery provides standard scores for adult age ranges through 75+ years.

The Woodcock-Johnson Psycho-Educational Battery (Woodcock & Johnson, 1977) measured skill levels in mathematics and written language. Sattler (1982) found that the Woodcock-Johnson "appears to be a well-standardized, reliable, and valid measure of cognitive ability, scholastic achievement, and interest." (p. 263). The Woodcock-Johnson meets the technical adequacy requirements of the State of Washington for use in diagnosing the discrepancy between potential and achievement for individuals with learning disabilities (State of Washington, 1990). The state's requirements include a reliability coefficient of .85 or above. Each Woodcock-Johnson cluster has a standard score with a mean of 100, and a standard deviation of 15. Norms are provided for ages 3 to 63+.

The math cluster of the Woodcock-Johnson is comprised of a calculation subtest and an applied problems subtest. These tap (a) paper and pencil math ability and (b) problem solving with story problems that are read along with the subject.

The Woodcock-Johnson written language cluster is comprised of dictation and proofreading. The dictation subtest examines punctuation, spelling and usage when writing. Proofreading requires the individual to identify errors in printed text. Errors here also may be in punctuation, spelling or usage, with only one error in each passage examined.

Program eligibility. Offenders who reported a previous professional diagnosis of learning disabilities, "dyslexia", or hyperactivity were recommended to the court for program participation, regardless of their current test scores. ART participation was recommended for other clients if the WAIS-R deviation IQ was 85 or above, and an academic achievement score in one or more areas was at least 10 points below the IQ score. The number of points used to determine a discrepancy were smaller than initially

planned, because it appeared that prorated IQ scores tended to be depressed in these adults. However, when school records were examined, it was predominantly those with higher IQ scores who demonstrated lower current estimates of intellectual potential when compared with earlier testing. The current IQ scores could simply indicate regression towards the mean, but some earlier estimates of intellectual abilities also may have underestimated potential in those with lower IQ scores.

The IQ cutoff at 85 was intended to mitigate the likelihood of the inclusion of those who might be "slow learners", but not learning disabled. Although the "average" IQ range often is considered to be a score between 90 and 110, learning disabled who have reading deficits are likely to have derived less benefit from opportunities to expand their verbal knowledge through school learning and reading. Such individuals often have depressed IQ scores, particularly on verbal measures of IQ. This tendency would be likely to depress a WAIS-R prorated IQ that included a vocabulary subtest score. The likelihood of a depressed estimate of IQ led to the decision to accept a 10 point or greater difference between the deviation IQ and the achievement score as sufficient for inclusion in this study. One exception to the 10 point difference was allowed when a superior passage comprehension score of 120 and the pattern of WAIS-R subtest scores indicated that the individual's prorated IQ score of 92 substantially underestimated his intellectual potential.

Sentencing and Group Assignment Procedures

Although 126 of the 153 men tested were recommended to the court for program participation, only one hundred and two men were sentenced to the program by the Northeast District Court. Forty-three of the 102 were reported to the court as non-compliant for program participation; however, 5 of those subsequently completed the program satisfactorily, and were included as experimental subjects. An unknown number of the 43 non-compliant offenders were relieved of the responsibility for program

completion by the court. Some were known to have been relieved of that condition of their sentencing upon appeal to the court.

Use of the program by the court. The judges, particularly protem judges, were unaccustomed to utilizing this sentencing measure, or may have decided that the offense did not warrant a three month long program. The often subtle and multifaceted connection between offending status and learning disabilities also may obscure recognition of the unique treatment needs of this population. It might not be apparent that learning disabled individuals need a rehabilitation that both circumvents and addresses their information processing deficits. The appropriateness of the ART program for learning disabled offenders is less obvious than the use of anger management programs for violent offences, and substance abuse programs for alcohol/drug related offenses. Sheer complexity and number of recommendations before the judge at the time of sentencing also may have caused a judge to overlook the LDA program as a potential sentencing measure. Such inconsistency may have affected client selection.

Client assignment to program version. Random assignment to experimental condition, dilemma or non-dilemma, had been planned but proved impractical. There was no way of anticipating which clients would show up at the beginning of the program when group assignment was made. Many program participants were assigned either to dilemma or non-dilemma groups based upon the first letter of their last name, as this seemed a convenient way to divide those who were present into two groups. The first part of the alphabet made up one group, and the second part of the alphabet made up the other experimental group. Those who began with the second session of a program series were assigned to the smaller of the two groups. However, if individuals made up sessions later, they participated in the same program version as their initial group in order to ensure consistent exposure to the same program version.

Client assignment to control status. The 33 control subjects were those clients who had been tested and found suitable for the LDA program, but whom the court did not sentence to the program. In four cases, the judge chose to waive the program requirement, and in six others, when contacted, the judges said that they had not observed the LDA recommendation for program participation when they were sentencing. The reason for not-including the LDA program in sentencing is unknown in 23 cases, but could include the foregoing reasons as well as others. Individuals who remained noncompliant with the court order for participation were not included in the control group.

Program Implementation

A well-planned correctional program takes account of the characteristics of the target population, the nature and role of successful instructors, and the interactions between clients and staff that will facilitate compliance and learning, as well as designing or identifying a curriculum that will appropriately respond to client needs (Andrews, et al., 1990; Goldstein et al., 1987). The LDA alternative sentencing committee considered these factors in formulating the Life Skills program, but some nuances emerged only with program implementation. Plans were altered to accommodate clients' needs as they became evident. An example of this latter was the changing of the program title on the clients' manuals from "Learning Disabilities Association Adult Program" to "LDA Life Skills Program". Many individuals in the first program group objected to the term "learning disabilities", especially in their initial contacts, and did not like carrying a manual with that title. One client reported that his father teased him for having to participate in a "learning disabilities" program.

Communication and Compliance Issues

Addressing cognitive, affective and behavioral needs. At all points of contact, multiple and redundant communications were employed in dealing with potential program participants. For the sake of documenting the process, initial communications for testing

and/or program appointments usually were in writing. However, clients moved frequently, resulting in delayed or non-delivered mail. If received, clients often disclosed that they had not opened their mail, or had not read it. Many clients only partially understood or misunderstood what was written.

Written communications were always followed by phone calls. Phoning seemed quite effective in reducing "forgetfulness", a common excuse for not keeping appointments. The memory or organizational difficulties of many learning disabled could contribute to missed appointments, a frequent problem. Phone calls also provided more personal and open communication, where client anger could be defused, facilitating compliance. Many were very sensitive to the label of "learning disabilities", which resurrected feelings of anger and failure reminiscent of negative school experiences.

Aside from the communication problems caused by feelings of anger and frustration, certain men needed to have information about testing and the program repeated in several different ways. These individuals appeared to have learning disabilities based upon deficient oral language skills. Such clients appeared resistant when, in fact, they simply had comprehension difficulties. Patience and repetition were necessary in facilitating their understanding and compliance.

Many clients, perhaps those with the most severe reading problems, indicated that they had not read the written version of the program rules and responsibilities. These also were reviewed orally when the client manuals were distributed. Arrival on time, attendance, and non-use of alcohol and/or drugs before class sessions were the most frequently enforced rules. In spite of repetition of these rules, occasional clients appeared sincere when they indicated they had been unaware of the requirements until individually confronted. When these circumstances arose, participants were approached privately, either during breaks or after the sessions. When late arrival and attendance were issues, other program participants would indicate they they had been aware of the rules, and that

enforcement was expected. At that point, rule-breakers appeared to agree that this was fair.

Job conflicts. Many of these men worked in low-paying jobs, with little flexibility for getting time off for appointments. Often they already had missed work time for court dates, and reported themselves in danger of losing their jobs if they took more time off. Further, with a history of frequent job changes, requests for time off were not likely to be acceptable. Some of the clients invented "dentist" appointments to cover testing appointments. Such pressures dictated that the program be offered both evenings and Saturdays, to allow for varying work schedules.

Attendance verification. Once these initial problems were worked out, and clients established regular attendance patterns, group cohesiveness developed. Program participants then were inclined to attend regularly and on time, as well as being in the required "state of mind". A new sign-in sheet each week documented attendance in case of disputes, which arose only rarely. It was important, however, to be able to resolve these few disputes with objective evidence, such as the client's own signature.

Program Description.

"Which types of youth, meeting with which types of change agents, for which types of interventions will yield optimal outcomes?" (Goldstein et al., 1987, p. 8). That was the question the LDA committee considered in choosing a program for learning disabled offenders from the district court. A social skills/anger control approach was chosen in preference to academic remediation because it was believed that lack of social problem-solving skills and/or self-management skills were likely to contribute more to court involvement than low academic abilities. The modeling and role-playing approach utilized by Aggression Replacement Training (ART, Goldstein et al., 1987) was chosen to facilitate learning in spite of common information processing problems, such as deficient academic skills, limited expressive or receptive language, or inefficient non-verbal

learning. (Schumaker, Pederson, Hazel, & Meyen, 1983). Furthermore, ART had demonstrated some success in reducing behavior incidents and facilitating community adjustment when used with incarcerated offenders aged 15-21 who were undifferentiated as to learning profile (Goldstein et al., 1987). Such a group of offenders is likely to include a disproportionate number of individuals with learning disabilities (Bell, Conard & Suppa, 1984; Berman, 1978; Dunivant, 1982; Keilitz & Dunivant, 1987). The ART program was chosen and implemented as described by Goldstein et al. (1987) unless otherwise noted.

Client's and instructor's manuals. As recommended by Goldstein et al., a large flip chart or chalkboard was used to help clients follow skill steps and anger techniques. To further help clients compensate for information processing difficulties, a client's manual was developed with a chapter for each of the 12 sessions included in the ART program. A talented young man with learning disabilities drew cartoons illustrating the steps of each skill and a relevant situation. Anger techniques were visually portrayed as well. Dilemmas were printed in the third section, and homework sheets were included. Each component was color-cued to facilitate use, with a new chapter being distributed each week. A corresponding instructor's manual was developed for the first five sessions, based upon material distilled from Goldstein et al., in order to make the information more succinct and available to instructors. This instructor's manual also provided a clear format to follow for each session, with space for the instructor's notes.

Homework. Homework pages were incorporated into the program, as suggested by Goldstein et al. Instructors offered encouragement and recognition when these were filled in. However, considering participants' reading or writing difficulties, completion of these was not mandated. Participants were only required to turn in the homework pages weekly with their names and the date. The use of the skill from the previous week was reviewed and discussed at the beginning of each skill building session. A minority

of the clients completed homework pages faithfully. It was not determined whether this might reflect better-developed reading and writing skills, more positive motivation to use skills outside the sessions, or some other factor.

Session scheduling and planning. Although twice-weekly sessions had been planned initially, consideration of clients' work schedules dictated once a week meetings. Some clients needed to re-arrange work schedules in order to accommodate attendance either on Wednesday evenings or Saturdays. Many also were ordered by the court to attend AA meetings regularly. As program participation was mandated by the court, every effort was made to ensure accessibility.

The initial session provided a general orientation, an explanation of rules and responsibilities, one-to one review of screening and test results, an opportunity to ask individual questions, passing out maps and giving directions to the program location and times, as well as completing pre-test measurements. Mailing of maps to participants was found inadequate for some individuals. Several participants missed their first sessions because they could not find the program location. This difficulty subsequently was solved by holding the pretest session at the LDA office where they all had come for testing. The LDA office was about a mile and a half from the court, which all knew how to find. During the initial session, staff could supplement the maps with verbal cueing for landmarks and directions to the program location, making sure that participants understood how to find it for the next week, and were certain of the correct time. Although verbal skills were not a strength for many participants, the combination of visual and verbal cues, with an opportunity to ask questions, seemed to suffice. Almost all participants drove their own cars, but a few needed help figuring out bus systems as well.

Goldstein et al.'s 10 week program was extended to 14 weeks, with two hour sessions weekly. Pretests and posttests took place during the first and last sessions.

Initial plans for the ART sessions incorporated the ten interpersonal skills chosen by Goldstein et al. (1987). Because twelve sessions were available for skill building, two other skills could be added. After 6 to 8 sessions, the instructors suggested a focus on the skills of "dealing with fear", and "dealing with failure" as potentially useful for these clients. But participants' questions also dictated the inclusion of a session on the nature of learning disabilities, as well as methods for coping and compensating for learning disabilities. A learning disabilities session was added and became a planned part of the program for subsequent groups, as did a session that combined dealing with fear and failure. On the other hand, the skill of helping others appeared to produce little of benefit. With subsequent groups, the skill of standing up for your rights was substituted.

In order to facilitate switching among the three program components (interpersonal skills, anger control, and dilemmas), two five-minute breaks were allowed during each session. Breaks also accommodated smoking and refreshments. Many evening class participants had physically demanding jobs that required arising early in the morning, and were tired by evening. Saturday morning participants often had been out the night before. Shifts of activity and attention were necessary to help the more restless participants to maintain their focus.

On a given evening or Saturday, each program component was allotted 35 minutes, a substantial reduction from Goldstein et al.'s recommended weekly total of three hours, with one hour per component during a week, when used with incarcerated individuals (Goldstein et al., 1987). Goldstein et al. made a similar adjustment in their community version of the ART program, which was 1 and 1/2 to 2 hours per night (Goldstein et al., 1989). As a consequence, each participant did not role play a skill or anger situation each week, as initially recommended by Goldstein et al. (1987). Instructors had to use their judgement as to which situations produced by participants appeared to be most beneficial for group role play. However, a majority of participants readily responded to their peer's

role-playing with suggestions, positive criticisms and support. The involvement level usually was high, and participants tended to be empathetic with each other.

Group size. Group size ranged from one to ten, depending upon attendance that particular evening or day. Saturday groups tended to be smaller, as evening was the preferred time for most participants. Ten participants in a group definitely presented problems for maximum participation and obtaining appropriate behavior. The most common group size was around 6 individuals, which appeared to be optimal, as recommended by Goldstein et al..

Attendance. Attendance at thirteen out of the fourteen sessions was required, with the option of missing one of the second through thirteenth sessions. Pretest and posttest sessions were required. Late arrival, more than fifteen minutes after the hour, was considered a missed session. Participants who missed two or more sessions had to make up one or more by attending sessions with subsequent groups. Generally, those who attended the pretest session established patterns of regular attendance and completed the program as required. A few who failed to make the pretests as scheduled did begin with the first or second session, making up what they had missed, and completing the program satisfactorily. Once several sessions had been held, most participants indicated that they enjoyed the program (See Appendix E).

Noncompliance. Total noncompliance with the court's order to participate in the program generally began with missing the pretest. In response to personal phone contact, which followed the mailed notice, some indicated that they had no intention of attending the program. Others said they would attend, but never showed up, even after several further reminders. The court was notified in such cases. A few of these individuals did successfully complete the program after being called into court by the judge regarding their noncompliance.

Research permission. Because program results were to be used in a dissertation project, offenders were asked to give permission to include their data in the research report. The consent form was presented to the first group during their posttest session, while they were in a group (See appendix F). Several did not give permission. In subsequent groups, the consent form was presented one or two sessions before the last one, giving individuals a copy to take with them to think about. With this format, only two individuals of the subsequent 30 did not give permission for use of their data. One additional client's permission was not obtained because he refused to complete the posttests.

Instructors

Male and female instructors were paired where possible, to facilitate modeling of situations involving both sexes. Three females and one male were instructors for the first two groups. Groups three through eight were instructed by male+female pairs. Although the men in the group generally responded well to female instructors, the male participants may have derived additional benefit from the availability of same-gender role models.

The role of instructors. Instructors concentrated on one of the three program components in order to focus their preparation and enhance competence. Typically, four instructors, presenting in pairs, worked with two groups of clients on a given evening. This allowed one instructor to take the lead for a given component, but to work in cooperation with another instructor for a different component. One instructional pair presented the interpersonal skills to the first group of participants, while the other pair presented anger control to the second group. After the first break, the groups switched rooms, so that those who had received anger control received interpersonal skill building next. Their counterparts received anger control during the second period, which followed their skill building component. During the third period, pairing of instructors switched. One instructor who had been presenting skills worked with one who had been presenting

anger control. Dilemma resolution was presented to one client group while an additional period of interpersonal skill building was presented to the other client group. This structure formed groups of "dilemma" clients and "non-dilemma" clients, which was the basis for one of the research hypotheses comparing the relative effectiveness of dilemma resolution compared with additional time spent on skill building. The same four instructors provided training to both dilemma and nondilemma groups on a given evening or Saturday. One pair of instructors presented skill building to both dilemma and nondilemma groups, and the other pair of instructors presented anger control to both groups.

Instructors handled any behavior or participation problems that arose during the course of their component session. Major disciplinary problems, such as late arrival, or serious behavioral problems, such as total lack of participation or apparent drug or alcohol use before a session, were discussed by the instructors as a group, and handled by the program coordinator, who approached participants privately regarding the matters. No client dropped out as a result of being confronted with such situations, and the problem usually was solved.

Instructors were expected to keep the groups on task with the particular skill, anger techniques or dilemma discussions for the session. At times, client participation was slow. A more thorough preparation and discussion of the skill by the co-instructors was found to facilitate a higher level of client involvement. Role plays then could be based upon relevant situations raised by the clients.

Characteristics and training of instructors. Following Goldstein et al.'s (1987, p. 35) recommendation, in seeking instructors for social skills group, emphasis was placed on qualities such as sensitivity, flexibility and instructional talent. Enthusiasm, warmth, and ability to share feelings and events from their own lives in relating to the needs of these young men appeared to be important. Effectiveness in the role plays, which

modeled skills and anger control techniques, elicited favorable comments from program participants. One instructor, with particularly good understanding of Kohlberg's stages of moral reasoning, took the lead in dilemma resolution sessions for 3 out of the 4 groups that had this component. The fourth group was led by two individuals who also had particular interest and competence in handling dilemma resolution, which is judged to be the most difficult program component to facilitate.

Instructional staff included school psychologists, a high school teacher, an educational consultant, a special education teacher, and counselors. Two young men without professional background also were group co-instructors. One was a graduate of the first client group, a young man who had shown leadership qualities, facility in sharing, and a supportive attitude toward other group members. The other was a 29 year old young adult with attention deficit hyperactivity disorder with learning disabilities whose background was similar to the client group, and who also possessed leadership and communication abilities. The former program participant, at age 22, was the youngest instructor, with other instructors ranged in age from their late twenties through their fifties. Comments from program participants appeared to reflect favorably on all instructors. (See appendix E).

The first group of instructors met monthly or more frequently for one and one half years before beginning the program. This extended period was available for training because program implementation was delayed while procedures were being worked out with the court and probation systems. This initial group of instructors read and discussed the Aggression Replacement Training manual (Goldstein et al., 1987), and listened to the audiotapes that provided examples of social skills sessions (Goldstein, et al, 1980b). Sessions in social skills, anger control and dilemma resolution were practiced among the instructors. Instructors for subsequent groups were trained by members of the first group of instructors.

Dilemma resolution training, provided by the Aggression Replacement Training Manual (Goldstein et al., 1987), was supplemented by a half-day training session given by Peter Scharf, Ph.D. (1978a, 1978b, 1978c), who was associated with Kohlberg at Harvard during the development of the theory and practice of the moral education program, or dilemma resolution approach. The initial group of instructors also attended a full-day workshop given by Arnold Goldstein on using the social skills approach. Two instructors from the initial group continued through six client groups, and one through all eight groups during the first year. The program coordinator, who was the principal investigator, was present at all sessions except one, sometimes acting as a monitor-resource person, and at other times as a co-instructor.

Summary

Data measurement for this study relied primarily upon district court charges as an indicator of offense, and time allocation, reflected in the Weekly Activity Record, as a predictor of tendency toward recidivism. Data also were collected on social skill development, anger disposition, socioeconomic status, IQ scores, academic achievement, and previous educational diagnosis. Clients were identified through screening and testing procedures that resulted in program participation recommendations to the court. The Aggression Replacement Training program was identified as appropriate for these subjects with some modification, and was implemented with particular attention to the communication and behavioral needs of learning disabled offenders. One particular addition to ART was the development of a client's manual with visual cues, and an instructor's manual, which provided more specific guidance in program implementation.

CHAPTER 4

Data Collection - Subjects

There were 34 ART program participants, and 33 control subjects. Sixteen of the 34 program participants were in the dilemma group, and 18 were in the nondilemma group.

Demographic Profile

Age, Race, and Sex

The mean age for the 67 subjects was 26.12, SD = 4.72. Dilemma subjects' mean age was 24.94, SD = 4.51, ranging from 18 to 33. Nondilemma subjects' mean age was 27, SD 4.68, ranging from 19 to 35. Controls had a mean age of 26.2, SD 4.86, ranging from 17 to 36. An analysis of variance demonstrated that the dilemma, nondilemma and control groups were not significantly different in age, $F(2,64) = .817, p = .4461$.

Almost all clients were Caucasian, which was representative of area demographics.

Clients for the LDA alternative sentencing program included only male offenders. Preliminary screening at the Northeast King County District Court found that 7 out of 8 offenders from that court were male (Curulla, 1988). Males also have seemed to predominate among those identified as learning disabled. Additionally, single gender treatment groups appeared most appropriate, based upon current practice in community-based anger management programs.

Socioeconomic Characteristics

The Northeast King County District Court draws clients from an urban, suburban and rural population. Population characteristics within this geographic area range from rural poor to high socioeconomic status. According to client report, this entire spectrum was found among alternative sentencing program clients, if parental status were considered. If client employment were the measure, status ranged from low SES for the majority of clients to middle income SES for a few.

Almost all offenders reported holding some type of job, although some had temporary, irregular, or part-time employment. Program participants typically were employed in manual labor or low paying jobs. However, two were quite successful financially during the time when they were enrolled in the program. One was a vice-president of a small computer software company, and another was running his own painting/maintenance business; both reported well above average income. Aside from these, occupations such as landscape laborer, bartender, auto-body work, fast food service employee, construction laborer, and assembly work were common. A number reported having been fired from, laid off, or having quit previous jobs for a variety of reasons. Many changed jobs during the three to four months they were in the program, some more than once. A good local economic climate facilitated such changes.

As rated by Duncan's socioeconomic index (Duncan, 1961), the mean SEI scores for experimental subjects and control subjects did not differ significantly from each other. The mean score for 32 employed experimental subjects was 17.34, $SD = 12.06$, with the average of the decile ratings at the 3rd decile. Occupational status ranged from a value of 7 to a value of 65. Twenty-nine employed control subjects obtained a mean socioeconomic index score of 22.31, $SD = 14.91$, with a 4th decile average. The range of values for control subjects' status was from 7 to 67. Similar results were obtained when employment status was scored as recommended in Mueller and Parcel (1981).

Psychoeducational Profile

WAIS-R IQ Scores

Dilemma, nondilemma, and control groups were not significantly different in IQ, $F(2,64) = .356, p = .7017$ (See Table 1). All subjects, with a few exceptions among the previously diagnosed, showed a WAIS-R short-form deviation IQ of 85 or above. The cutoff score of 85 resulted in the exclusion of two individuals among the 153 who were tested after being screened at the court. No individuals identified themselves as

developmentally disabled when screened at the court, nor were any found to be developmentally disabled when tested. The experimental subject with the estimated IQ score of 70 had been found in the past to have a non-verbal WAIS-R IQ score of 95, well within the average range, and had been classified as learning disabled with severe language processing problems.

School records, obtained when the clients gave permission, indicated that the current estimate of IQ tended to be lower than previous test results with the higher IQ offenders, but lower IQ offenders tended to obtain deviation quotients that were as high or higher as those obtained during their school years. The mean IQ score of 101.36, SD = 12.18, for this group of offenders (N = 67) is very close to the WAIS-R mean of 100, SD = 15.00, suggesting that these offenders have considerably higher cognitive potential than those offenders sampled by Bell, et al. (1984), whose learning deficient group had a mean WAIS-R IQ score of 77.8.

Table 1
 IQ and Academic Scores Based on Program Version a, b, c
 Dilemma Subjects

	WAIS-R Vocabulary	WAIS-R Similarities	WAIS-R Block Design	WAIS-R Prorated IQ Score	Word Identification	Passage Comprehension	Reading Short Scale	Math Cluster	Written Language Cluster
Mean	8.94	10.69	10.88	100.94	88.13	92.50	90.19	80.93	84.20
Minimum	5.00	4.00	6.00	70.00	68.00	65.00	63.00	<65.00	<65.00
Maximum	14.00	18.00	16.00	123.00	112.00	123.00	120.00	98.00	106.00
Standard Deviation	2.72	3.30	2.85	14.70	12.75	17.69	16.00	11.04	9.70

Table 1 - Continued

IQ and Academic Scores Based on Program Version

Nondilemma Subjects

	WAIS-R Vocabu- lary	WAIS-R Similar- ities	WAIS-R Block Design	WAIS-R Prorated WAIS-R IQ Score	Word Identifi- cation	Passage Compre- hension	Reading Short Scale	Math Cluster	Written Language Cluster
Mean	8.39	9.78	11.67	99.56	84.28	89.78	86.89	84.28	78.56
Minimum	4.00	5.00	7.00	85.00	58.00	47.00	50.00	<65.00	<65.00
Maximum	14.00	15.00	18.00	134.00	105.00	120.00	104.00	117.00	99.00
Standard Deviation	2.66	2.21	2.40	11.71	13.65	15.89	15.29	14.07	9.08

Table 1 - Continued
 IQ and Academic Scores Based on Program Version

	Control Subjects									
	WAIS-R Vocabu- lary	WAIS-R Similar- ities	WAIS-R Block Design	WAIS-R Prorated WAIS-R IQ Score	Word Identifi- cation	Passage Compre- hension	Reading Short Scale	Math Cluster	Written Language Cluster	
Mean	8.64	11.70	10.91	102.55	89.42	97.76	92.55	84.40	82.90	
Minimum	5.00	7.00	5.00	77.00	59.00	51.00	47.00	<65.00	<65.00	
Maximum	13.00	18.00	15.00	132.00	108.00	138.00	123.00	135.00	112.00	
Standard Deviation	2.29	3.06	2.55	11.34	10.38	18.20	15.11	13.49	10.20	

^aFor dilemma subjects, n = 16 except for the Math Cluster and the Written Language Cluster, where n = 15.

^bFor nondilemma subjects, n = 18.

^cFor control subjects, n = 33, except for the Math Cluster and Written Language Cluster, where n = 30.

Academic Achievement Scores

Academic achievement score means and standard deviations for the dilemma, nondilemma and control groups are found in Table 1. A standard score of 65 is the lowest tabled score on the Woodcock Johnson Psychoeducational Battery for both the math cluster and the written language cluster. If lower scores were possible, group means for math and written language would have been further depressed, as five experimental clients obtained the lowest possible math scores ($SS < 65$), and 3 obtained the lowest possible scores in written language ($SS < 65$). Two out of 30 control subjects had the lowest possible math cluster score, and 1 out of 30 had the lowest possible written language score.

The mean achievement scores for all subjects were (a) passage comprehension = 94.36, $SD = 17.58$, (b) word identification = 87.73, $SD = 11.91$, (c) math cluster = 83.54, $SD = 13.00$, and (d) written language cluster = 81.97, $SD = 9.88$. Dilemma, nondilemma and control groups were similar in their achievement levels. A two-factor repeated measures ANOVA examined mean achievement scores among the groups for all subjects with complete data, $N = 63$. One dilemma client did not have math and written language data, and three control subjects were missing the same data. There were no significant differences in mean achievement scores based upon the group -- dilemma, nondilemma or control -- $F(2,60) = .513, p = .6014$.

There were highly significant differences between achievement subtests -- passage comprehension, word identification, math cluster, and written language cluster-- when examined on the repeated measures dimension of the two-factor ANOVA, $F(2,60) = 7.71, p = .0001$. Passage comprehension was stronger than word identification; however, most notable were the math and written language cluster mean scores that were very significantly weaker than either of the reading subtests. Math and written language

did not significantly differ from each other. All other comparisons were significant.

Paired *t*-Test values were obtained as follows:

	<i>df</i>	<i>t</i>	<i>p</i>
word identification with passage comprehension	66	-2.664	.0097
math cluster with passage comprehension	62	-2.805	.0067
written language with passage comprehension	62	-5.27	.0001

Educational History and Previous Diagnosis

High school graduation. Many of these offenders had graduated from high school or obtained a GED, according to their self-report. Among 33 controls, 17 said they had high school diplomas, and 6 had GED certificates. Among 16 dilemma clients, 10 reported graduation, 2 had GEDs, and 1 was still a senior in high school. With 18 nondilemma participants, 11 had diplomas and one had obtained a GED.

Previous diagnosis. All clients reported academic difficulties or demonstrated such problems in their writing sample. The school's response, or previous diagnosis, was examined along the dimensions of (a) "LD", which included previous professional identification as learning disabled, "dyslexic", or hyperactive; (b) "SP", including those who reported they had been in special programs or tutored; and (c) "no previous diagnosis", who were individuals who denied any previous identification or special help because of poor academic achievement. Membership in these groups could be inaccurate if client self-report was influenced by denial, inaccurate memory, or lack of awareness of school diagnostic category.

Thirteen out of 34 experimental subjects reported a previous diagnosis of learning disabilities, dyslexia, or hyperactivity. Another 6 disclosed having been in special classes at some time during their school years, without being able to give a diagnostic label. One disclosed that he had been told that he was mentally retarded in second grade, which was clearly an inappropriate diagnosis based upon current test scores. Another program participant, aged 18, had dual diagnoses of hearing impairment and hyperactivity. Among thirteen others, several who had initially denied such experiences later revealed they also had been evaluated for learning problems during their school years and received special help. The accuracy of diagnostic information for control subjects could not be checked against later disclosures, because there was no contact with them subsequent to testing.

Differences in IQ that approached significance were found between these diagnostic groups when examined with a one-factor ANOVA, $F(2,31) = 3.105, p = .059$. The group that included those who were identified previously as learning disabled, dyslexic or hyperactive (LD) had significantly lower IQ scores than the special programs (SP) group, comprised of those who disclosed that they had been in a special program or received tutoring, without specifying that they had been identified as learning disabled. This IQ difference was significant when examined with the Fisher Probability of Least Significant Difference, $F = 12.078, p < .05$. IQ and academic scores for these diagnostic groups are found in Table 2

Table 2
 IQ and Academic Scores Based on Previous Diagnosis a, b, c

Special Programs Subjects

	WAIS-R Vocabulary	WAIS-R Similarities	WAIS-R Block Design	Prorated WAIS-R IQ Score	Word Identification	Passage Comprehension	Reading Short Scale	Math Cluster	Written Language Cluster
Mean	10.50	10.83	12.50	107.50	88.50	98.67	92.67	90.50	81.67
Minimum	6.00	5.00	11.00	85.00	61.00	76.00	63.00	65.00	65.00
Maximum	14.00	13.00	15.00	123.00	105.00	123.00	112.00	117.00	106.00
Standard Deviation	2.95	3.13	1.97	13.92	16.81	16.61	18.30	17.59	15.03

Table 2 - Continued
 IQ and Academic Scores Based on Previous Diagnosis

LD Subjects

	WAIS-R Vocabu- lary	WAIS-R Similar- ities	WAIS-R Block Design	Prorated WAIS-R IQ Score	Word Identifi- cation	Passage Compre- hension	Reading Short Scale	Math Cluster	Written Language Cluster
Mean	7.87	9.47	9.87	94.53	83.80	86.00	84.20	78.13	81.07
Minimum	5.00	4.00	6.00	70.00	68.00	65.00	63.00	<65.00	69.00
Maximum	11.00	18.00	14.00	112.00	99.00	104.00	100.00	95.00	99.00
Standard Deviation	1.92	3.09	2.23	10.91	10.64	13.56	11.63	8.84	8.30

Table 2 - Continued
 IQ and Academic Scores Based on Previous Diagnosis

No Previous Diagnosis Subjects

	WAIS-R Vocabulary	WAIS-R Similarities	WAIS-R Block Design	Prorated WAIS-R IQ Score	Word Identification	Passage Comprehension	Reading Short Scale	Math Cluster	Written Language Cluster
Mean	8.69	10.77	12.38	103.38	87.62	93.38	91.38	84.67	80.92
Minimum	4.00	8.00	9.00	85.00	58.00	47.00	50.00	<65.00	<65.00
Maximum	14.00	15.00	18.00	134.00	112.00	120.00	120.00	106.00	95.00
Standard Deviation	3.01	2.17	2.60	12.98	14.69	18.91	17.91	12.79	8.97

aFor special program subjects, n = 6.

bFor LD subjects, n = 15.

cFor no previous diagnosis subjects, n = 13, except for math and written language, where n = 12.

Medical and Behavioral Issues

Head injury. Offenders often have been found to have an unusually high incidence of neurological impairment (Lewis, 1985a). A history of head injury may contribute to learning and memory problems. Behavior problems also may result from a head injury.

Fourteen of the 34 experimental subjects reported at least one incidence of head injury, while 10 of the 33 control subjects reported a head injury. These injuries appeared to range from mild, single incidents to multiple injuries and being unconscious for up to a week. Three experimental subjects reported head injuries before school entry, 6 had head injuries during their school years, and 3 disclosed head injuries after age 18. One did not give the age of his injury, and one disclosed multiple head injuries, both during and after his school years.

The apparently high reported incidence of head injury in these learning disabled subjects could relate to attention deficit-hyperactivity disorder (ADHD) behaviors, which might elevate the number of childhood and adult accidents. Some head injuries were the result of traffic accidents, auto or motorcycle. Head injury also could correlate with a history of substance abuse in these subjects.

Alcohol/drug abuse history. Experimentals and controls were asked to give yes or no responses to five questions regarding alcohol/drug problems: (a) Alcohol/drug problems in family members? (b) Do you have alcohol/drug related problems? (c) Alcohol/drug related convictions? (d) Alcohol/drug treatment- previously? (e) Alcohol/drug treatment - currently? Responses to substance abuse questions were suggestive of denial from both experimentals and controls.

Only three out of 34 program participants revealed family substance abuse problems on the questionnaire, although at least 4 more mentioned such problems during program sessions. Ten out of 31 controls believed family members had alcohol or drug problems. Four program participants initially revealed that they had alcohol or drug problems, but

during the sessions, 11 others disclosed incidents suggestive of substance abuse. Four out of 31 controls admitted to personal alcohol or drug difficulties.

Recorded charges and admitted convictions indicated that substance abuse may have played a larger role in these offenders' lives than they were willing to admit. Twelve program participants reported alcohol/drug related convictions. An additional 9 program participants had alcohol/drug related charges on their district court records. Overall, 21 out of 34 program participants, approximately two-thirds, demonstrated behavior that could be considered highly indicative of substance abuse. Five controls admitted alcohol/drug related convictions, with charges found on the records of 14 more. Thus, among 31 controls for whom this data was available, 19 showed behavior suggesting alcohol or drug abuse.

Five out of 34 experimental subjects reported they had been in substance abuse treatment programs in the past, and 2 additional subjects were in treatment when they completed the questionnaire. At least one other began treatment during the program, giving a total of 8 experimental subjects known to have received substance abuse treatment. Four controls admitted to previous treatment for chemical dependency, and 3 were in treatment when they answered the questions. Overall, 7 controls gave indications of participation in substance abuse programs.

These alcohol and drug related figures suggested that substance abuse problems are more prevalent than these offenders disclosed when completing the questionnaire. Substance abuse treatment experienced earlier by many did not appear to resolve all their difficulties, because a good number still are appearing in court. Additional intervention may be both appropriate and needed.

Offender Characteristics

The average age of these subjects was 26. Offenders have been observed to show a decline in the rate of offenses around age 25 (Bennett, 1987; Blumstein, 1983). A

tendency for offense records to begin to decline around age 25 could contribute to any decrease in charges that may be observed with this group of subjects subsequent to sentencing or program participation.

Criminal Records Check

County, state, and federal systems provided information regarding the criminal history of individuals. The public records of misdemeanor and gross misdemeanor charges filed at district courts within King County are considered by those within the correctional system to be fairly accurate (Cobb, Personal Communication, 1991). The records of all of the 34 experimental subjects and those of the 33 controls correctly reflected the offense for which they were sentenced to the LDA program. Most offenders self-reported other offenses; however, inaccurate recall of dates and exact charges made comparisons with district court records impossible.

A further check of offenses was made through the Washington Information System (WASIS) and National Crime Information Center (NCIC). These records, going back into the 70s, are considered reliable for felonies, both in and out of state. District court records were added to the WASIS and NCIC data set fairly recently. WASIS and NCIC printouts indicated that most control subjects and experimental subjects had relatively few recorded felonies or misdemeanors aside from those found in the county district court records. Five out of 33 control subjects had 11 such charges on their records, while one other control had 19 charges from law enforcement agencies outside of King County. These six control subjects also had FBI files. Four experimental subjects, out of 34, showed a total of 9 charges in other jurisdictions, while a total of 7 experimentals had FBI files. FBI files resulted from having been fingerprinted and information about an offense entered into that system.

Although not 100% accurate, the district court, WASIS, and NCIC records appeared the most effective way of examining comparability of the rate and seriousness of

past offenses and subsequent recidivism. Experimental and control groups appeared comparable regarding the number and seriousness of offenses found on county, state and federal records.

History of offending. Referrals from the district court, which does not handle felony offenses, included only those currently being charged with misdemeanor or gross misdemeanor offenses. The WASIS and NCIC records check suggested that a minority of these clients had been convicted of felonies. These records did indicate that one individual with a lengthy criminal history been released from prison in another state shortly before his misdemeanor offense in the Northeast District Court area. During program sessions, many clients made reference to having been in jail for at least some period of time. Program participation provided an opportunity for some of these experiences to become known.

On the other hand, there was no personal contact with controls after testing, allowing little opportunity to gain a first hand idea of their criminal history. Those who had the initiative and ability to appeal the judge's decision, by writing letters, appearing in court, etc., might be higher functioning than program participants, and less likely to re-offend. On the other hand, such individuals could be better acquainted with the court system through previous contacts, and more prone to recidivism based upon past number of offenses. However, groups were very similar in their mean number of offenses during the six months previous to sentencing or program completion (See Table 3).

Table 3
 Mean Number of District Court Charges During Six Months Prior to
 Sentencing or Program Completion

Group	<u>N</u>	<u>M</u>	<u>SD</u>	<u>SE</u>
Control	33	1.758	1.733	.302
Nondilemma	18	1.667	1.328	.313
Dilemma	16	1.875	1.586	.397

Pleas entered in court. Experimental subjects and control subjects were obtained primarily through the arraignment process when they entered guilty pleas. Five of the 33 controls had entered not guilty pleas, and 5 of the 34 experimental subjects had entered not guilty pleas. This group of offenders could be somewhat different from a group made up of randomly chosen court clients. Approximately 50% of the Northeast King County District Court's clients submit "not guilty" pleas, with approximately 75-80% of these being found "guilty". The group of subjects in this study, based upon initial plea entered, was not entirely comparable to the spectrum of those going through this court.

Summary

Experimental and control groups demonstrated the pattern of cognitive and academic functioning expected in adults with learning disabilities. However, the mean estimated IQ score of 101.36, SD 12.18, for 67 subjects was substantially higher than that reported in most groups of juvenile delinquents or incarcerated adults with learning disabilities.

These subjects tended to have better cognitive resources available to facilitate problem solving than offenders whose IQ has been measured while incarcerated.

CHAPTER 5

Results

Dependent Variables/Primary Analyses

Tendency toward recidivism and actual recidivism were the primary dependent variables in this study. Measurement of these variables was accomplished with the Weekly Activity Record (Jenkins, et al, 1974, Appendix A) and actual district court charges found on microfiche. Only experimental subjects provided data for the first variable, tendency toward recidivism. District court records were examined for all subjects, experimental and control.

Tendency Toward Recidivism (WAR)

The first hypothesis, which concerned a difference in tendency towards recidivism between the dilemma and the non-dilemma program version groups, was confirmed. The dilemma version group showed a significantly reduced tendency toward recidivism, as measured by WAR posttest scores, when compared with the nondilemma group.

Because a two-factor repeated measures ANOVA had indicated that there was a program version effect, $F(1,32) = 6.125, p = .0188$, dilemma and nondilemma pretest and posttest scores were compared. The mean pretest WAR score for the dilemma group ($n = 16$) was 5.625, $SD = 1.746$, and for the nondilemma group ($n = 18$) was 6.611, $SD = 2.404$. A one-factor ANOVA indicated that these scores were not significantly different from each other, $F(1,32) = 1.83, p = .1856$. However, WAR posttest scores for the dilemma group indicated a significantly lower tendency toward recidivism, compared with the nondilemma group, when examined with a one factor ANOVA, $F(1,32) = 8.903, p = .0054$. See Table 4 for means and standard deviations.

Table 4
Weekly Activity Record Posttest Scores

Group	<u>N</u>	<u>M</u>	<u>SD</u>	<u>SE</u>
Nondilemma	18	6.5	1.295	.305
Dilemma	16	5.0	1.633	.408

Recidivism (District Court Charges). The hypotheses of this study also postulated that there would be a significant difference in actual recidivism between the groups -- dilemma, nondilemma, and control; however, the hypothesis that Aggression Replacement Training would reduce recidivism in program participants could not be supported on the basis of this analysis. The mean number of charges for each group during the six month followup period were not significantly different from each other when examined with a two-factor repeated measures ANOVA, $F(2,64) = .652, p = .5242$. Table 5 displays the group means for the average number of district court charges per six month period from the first charge recorded until the sentencing date for the charge that led to screening for the LDA program. The group means for the actual number of charges during the six months following sentencing or program completion also are shown.

Table 5
Mean Number of District Court Charges

Group	n	Average of previous charges per six month period prior to sentencing or program completion	Charges during 6 months following sentencing or program completion
Control	33		
<u>M</u>		1.34	.49
<u>SD</u>		1.25	.97
Nondilemma	18		
<u>M</u>		.98	.56
<u>SD</u>		.75	1.10
Dilemma	16		
<u>M</u>		1.08	.19
<u>SD</u>		.72	1.59

All groups, dilemma, non-dilemma, and controls, showed a significant postprogram or postsentencing reduction in district court charges, based upon six month followup. Significant values obtained on the ANOVA repeated measure dimension were $F(1,64) = 28.51, p = .0001$. The low rate of offence for the six month period following sentencing or program completion in all three groups, dilemma, non-dilemma, and control, may have kept comparisons of recidivism among the groups from reaching statistical significance.

Although the dilemma, nondilemma and control group differences in the number of charges at followup are not statistically reliable, the observed frequencies suggested that the dilemma version of ART might be shown to be more effective in reducing recidivism, given a larger number of subjects and/or a longer followup period. The occurrence of

subsequent charges with a single subject among 16 offenders in the dilemma group appeared to compare quite favorably with the 5 subsequent offenders seen among the 18 nondilemma group members, and 8 subsequent offenders seen among the 33 control group subjects. These rates of re-offense are 6% for dilemma group individuals, 28% for nondilemma group individuals, and 24% for the control group. The frequencies for subsequent charges are illustrated in Table 6.

Table 6
Frequency Table for the Number of Charges
During the Six Month Followup Period

Number of Subjects within Each Group			
Number of Charges	Control n = 33	Nondilemma n = 18	Dilemma n = 16
0	25	13	15
1	2	2	0
2	5	2	0
3	0	0	1
4	1	1	0

Moderator Variables/Secondary Analyses

Secondary analyses which were planned included moderator variables reflecting social skill development, anger disposition, previous diagnostic status, intellectual development, age, and socioeconomic status. The review of the literature suggested that

one or more of these factors might affect program outcome.

Social Skills Development (Direct Situations Test)

Both dilemma and nondilemma groups demonstrated an increase in their scores on the Direct Situations Tests from pretest to posttest. Table 7 displays the mean scores. More steps for each skill were reflected in their postprogram answers when asked what they would do in particular situations. A two-factor repeated measure ANOVA found these differences to be statistically reliable, $F(1,31) = 10.974, p = .0024$. A program version difference, comparing dilemma to nondilemma groups in social skills development, however, was not identified, $F(1,31) = .143, p = .7082$. The posttest score was missing for one dilemma subject. Gain on the Direct Situations Test scores did not significantly correlate with the subsequent number of district court charges when examined with a simple regression analysis ($r = .081$).

Table 7
Direct Situations Test Scores

Groups	<u>n</u>	Pretest Scores	Posttest Scores
Nondilemma	18		
		<u>M</u>	37.79
		<u>SD</u>	8.85
Dilemma	15		
		<u>M</u>	37.20
		<u>SD</u>	12.50

Anger Disposition (Brief Anger/Aggression Questionnaire, BAAQ)

The Brief Anger/Aggression Questionnaire (BAAQ) scores remained quite stable from pretest to posttest for each group. See Table 8 for the group means. However, the dilemma group tended to rate themselves as more inclined to angry behavior than the nondilemma group. A 2-factor repeated measures analysis of variance indicated that there was a difference between the BAAQ scores of the two groups that approached statistical significance, $F(1,32) = 3.601, p = .0668$. Dilemma and nondilemma BAAQ scores were not significantly different from each other at pretest, $F(1,32) = 2.637, p = .1142$. However, at posttest, the dilemma group tended to rate themselves as more likely than the nondilemma group to engage in angry or aggressive behavior, $F(1,32) = 3.508, p = .07$. Figure 1 illustrates the differences in BAAQ scores at posttest. The BAAQ pretest, posttest and difference scores had no significant correlations with district court charges during the six months after program completion, when examined with a regression analysis, $r = .07, r = .035, r = .028$, respectively.

Table 8
BAAQ Pretest and Posttest Mean Scores

Group	<u>n</u>	Pretest Scores	Posttest Scores
Nondilemma	18		
		<u>M</u>	5.72
		<u>SD</u>	5.25
			3.43
Dilemma	16		
		<u>M</u>	7.75
		<u>SD</u>	7.63
			3.86
			4.13

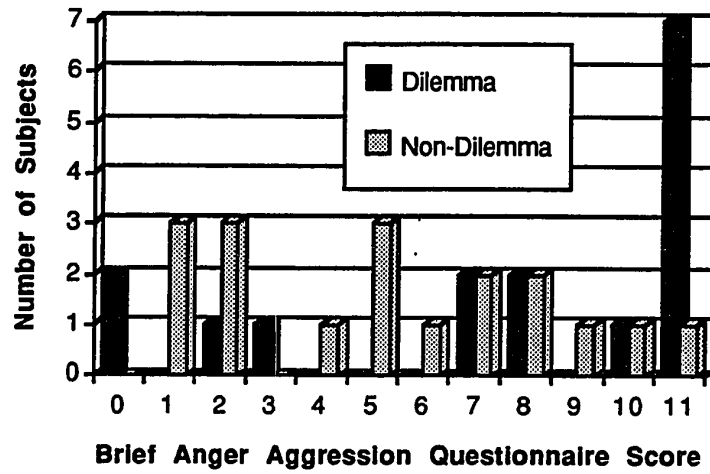


Figure 1: Brief Anger/Aggression Questionnaire Scores at Posttest

Previous Diagnosis Groups (SP, LD, and No Previous Diagnosis)

No relationship was identified between subsequent rate of charges and previous diagnostic status, that is, special program (SP), learning disabled (LD), and no previous diagnosis. Neither were relationships identified between previous diagnostic group and pretest scores on the Direct Situations Test, the BAAQ, or the Weekly Activity Record. A one-factor ANOVA produced the following values: (a) between previous diagnosis and the Direct Situations pretest scores, $F(2,30) = .446, p = .6442$; (b) between previous diagnosis and the BAAQ pretest scores, $F(2,31) = .033, p = .9674$; and (c) between previous diagnosis and Weekly Activity Record pretest scores, $F(2,31) = .373, p = .6919$.

IQ Scores (WAIS-R)

Level of IQ and recidivism were not significantly related. IQ scores were divided at the median into high and low scores, and the difference in number of charges during the six months prior to program participation versus the charges six months following program participation was computed. See Table 9 for the mean reductions in charges for each group. These differences were not statistically significant when examined with a two-factor analysis of variance, $F(1,32) = 2.11, p = .1561$. Differences, however, were in the direction hypothesized. That is, higher IQ individuals showed larger values representing decline in their rate of subsequent charges during the six month followup period when compared with the number of charges during the six months previous to program completion.

Table 9
IQ and the Mean Difference in Rate of Subsequent Charges
Compared with Previous Charges

Groups	Low IQ	High IQ
Nondilemma	$n = 11$	$n = 7$
	$M = -0.91$	$M = -1.43$
	$SD = 0.83$	$SD = 1.62$
Dilemma	$n = 7$	$n = 9$
	$M = -1.29$	$M = -2.00$
	$SD = 0.49$	$SD = 2.10$

IQ scores did not significantly relate to any other outcome measures, including tendency toward recidivism (WAR), Direct Situation Test difference scores from pretest to posttest, or BAAQ posttest scores. The coefficient representing the correlation of IQ scores with WAR posttest scores was .04. When pretest to posttest difference scores on the Direct Situations Test were examined with an ANOVA in relation to IQ level (high or low), insignificant values were obtained, $F(1,32) = .611, p = .4402$. ANOVA also showed that there was no difference in BAAQ posttest scores based on IQ level, $F(1,32) = 1.403, p = .245$.

Age

Age was the single variable that related significantly to recidivism. Older subjects were less likely to have subsequent offenses. Considering both experimental and control subjects, the correlation between age and charges during the six months following sentencing or program completion was $r = .287, N = 67, p(r) = .0186$.

When experimentals and controls were considered separately, essentially the same magnitude of correlation was found, but the correlations failed to reach statistical significance due to smaller n's. Experimental statistics were $r = .296$, $n = 34$, $p = .0886$; and control values were $r = .28$, $n = 33$, $p = .1139$. However, for the total group, results suggested that these offenders were similar to others in experiencing a decline in subsequent offense around their midtwenties.

Socioeconomic Status (Duncan's Index)

Originally it had been planned to analyze program benefit in relation to SES. However, individuals within the groups were predominantly in the lower ranges of Duncan's rating scale so there would be no reason to anticipate a correlation between SES and various outcomes. This analysis was not completed.

Summary

Tendency towards recidivism was significantly lower in offenders who participated in the Aggression Replacement Program with all three components, when compared with those who received only the social skills training and anger management components. When subsequent charges were examined, the groups did not demonstrate statistically reliable differences in the number of charges, possibly because of the large number of experimental and control subjects with no offenses during the six months following sentencing or program completion. This low incidence of subsequent charges may have kept other variables from showing a statistically reliable relationship with recidivism as well.

Both dilemma and nondilemma groups demonstrated improvement on the Direct Situations Test at posttest, but the significance of this for subsequent behavior is uncertain. Age did demonstrate a relationship with the number of charges during the six month followup period. Other planned comparisons were not significant, although some were in the direction hypothesized, such as higher IQ individuals demonstrating greater

reduction in offenses subsequent to program completion. There were no significant differences in outcome based upon previous diagnostic status, initial level of social skills or development of social skills, initial level of anger/aggression, diminishment of anger/aggression or socioeconomic status. Thus, among the variables examined, only age and receiving the dilemma version of ART appeared related to these offenders' tendency toward recidivism or subsequent district court charges.

CHAPTER 6

Discussion

Any investigation that involves offenders in a community setting will have many factors that are difficult or impossible to control. The inconsistency of offender behavior and a law enforcement system that is stressed to its limits make research difficult to conduct without many such confounds to reliability and generalizability. Some of these have been mentioned in the methods section, and are briefly reviewed here. Other potentially confounding factors deserve consideration.

Subjects

Identification and Assignment of Subjects

Aside from the fact that these groups probably contained a higher than average proportion of those who initially entered a "guilty" plea at court arraignment, utilization of the program was inconsistent on the part of the judges. Random assignment to program version or control status was not possible. And program nonparticipation could have skewed the samples obtained for a variety of reasons. Bias in client selection was not ruled out in this study, but probably would have affected dilemma and nondilemma groups equally.

Age of These Offenders

The average age of both experimental and control subjects was close to 25, which is the age at which others have noted a general tendency for a decrease in offending behavior. A longer followup period could provide further insight into this question of decreasing offenses around age 25. Given these subjects average age of 26, such a tendency could contribute to the lower incidence of subsequent offenses that was seen both in experimental and control subjects in this study. However, many individuals continue their frequent involvement with the courts after age 25, and age would not

explain the difference observed between the dilemma and nondilemma groups in tendency towards recidivism and decreased frequency of subsequent offense.

IQ scores

This group of offenders obtained substantially higher IQ scores than usually seen with juvenile delinquent or criminal populations, particularly those with learning deficits. It may be that lower IQ individuals with learning disabilities spend more time incarcerated, and therefore would be likely to be included in the jail and prison samples rather than being found in samples drawn from the community. It also is possible that the judges did not include the LDA program as a sentencing measure for anyone who would be receiving a lengthy jail term. If so, and lower IQ individuals are more likely to be incarcerated, then fewer such individuals would have been included in this program.

As was noted earlier, 126 men who had been tested were recommended to the court for program participation, but the court actually sentenced 102 to the program. Although it is known that some individuals were not sentenced to the program simply because the potential was overlooked by the judge, there could have been some bias in sentencing that was reflected in the IQ levels of those who were mandated for program participation.

The location for the initial screening also could have introduced some bias in client selection. Screening was conducted primarily in the courthouse, and secondarily, in the probation office. This process eliminated from consideration those offenders who were in custody while awaiting arraignment. Being held in custody while awaiting a hearing for current charges could be a frequent outcome for lower IQ learning disabled. Lower IQ learning disabled persons may lack the verbal or nonverbal skills that facilitate appropriate coping in an arrest situation. Lower cognitive skills also could have impaired their learning of the self-control strategies that help to minimize the negative outcomes from being arrested or cited. Numerous factors could contribute an increased incidence of lower IQ individuals being found in custody while awaiting arraignment.

Academic strengths and weaknesses

Academic strengths and weaknesses found in these subjects may reflect the type of learning disabled individual who is more likely to become involved with the law enforcement system. Attention problems differentially affect academic test scores, depending upon the nature of the measurement and its manner of administration. The Woodcock-Johnson math and written language clusters may particularly stress capacity to direct attention or to sustain attention.

Individuals with learning disabilities or attention deficit-hyperactivity disorder often have deficient math scores due to inattention to operational signs, or "carelessness" in other mathematical processes. Such individuals may be unaware that they have failed to complete problems that they are capable of doing. With story problems, poor readers who are inattentive may not focus on salient details or may misunderstand the gist of the passage. Attention problems also may affect self-monitoring of spelling, punctuation or usage. Correct answers that are known may not be produced, and mistakes may not be noted if maintaining focused attention is a problem. Proof-reading abilities may be impacted by deficient ability to sustain attention when scanning for errors of spelling, punctuation or usage. In contrast, word identification requires brief attention, although it too, can be affected by lack of self-monitoring. Reading comprehension allows somewhat more leeway. A person may not read all words accurately, but may get enough sense of meaning to be able to correctly supply a missing word. Attentional problems, as a characteristic of learning disabilities or ADHD, could contribute to the pattern of relatively stronger reading skills and weaker math and written language abilities that was observed with these offenders.

The Diagnosis of Learning Disabilities

Screening

Screening procedures that initially were in place proved ineffective in selecting offenders for testing. Basing referrals for testing upon items from the Learning Disabilities Identification Aid (See Appendix G) produced a "hit" rate, or learning disabilities diagnosis, of around 50%. The self-report instrument which was included with the educational history, however, was retained because of the valuable information it provided about how an individual rated his own functioning (See Appendix D). Referral after the first 20 offenders tested was based upon educational history items and the writing sample. With this modification, a "hit" rate of 88.6% was established, with 117 individuals being found appropriate for the LDA program from among first 132 tested. The "miss", or false negative, rate, is unknown.

Diagnostic Battery and Criteria

Brief test batteries are acceptable for the identification of groups, which was the purpose of this study. However, the profile of strengths and weaknesses for individuals within the groups in this study was limited by the brevity of testing. Increased and sustained funding from the King County Council for the continuing LDA program has permitted the administration of the complete WAIS-R. WAIS-R subtest scores can be helpful in the diagnosis of learning disabilities because they provide insight into information processing skills that may be impaired in the learning disabled, such as memory processes, and auditory, language, visual or visual-motor abilities. With the complete WAIS-R IQ score, the criterion for a discrepancy between potential and achievement scores has been set at 15 points. The Woodcock-Johnson Tests of Achievement-Revised are now being used to measure academic skills in the areas of reading, writing, and math. With expanded testing and a larger discrepancy criterion, individual diagnosis is better defined.

Previous Diagnosis

Special programs group. The six individuals in the special programs group, who had received special programs but did not disclose a previous diagnosis as learning disabled, had significantly higher estimates of intellectual ability than those in the LD group (See Table 2, p. 88). Higher IQ students may have been better able to cope and compensate for their different learning styles. Such individuals may not have been identified as learning disabled within the school setting for a number of reasons, including not being referred for testing by their teachers. Teachers and others may be extremely reluctant to identify higher IQ individuals as having learning differences, fearing the negative effects of labeling.

"Laziness" often is inferred as the reason for lack of classroom success for students who obviously are bright in other ways. Good verbal skills, as well as higher intellectual potential, may have masked the learning differences of the SP group within the school setting. The six individuals who comprised the SP group had generally higher WAIS-R vocabulary scores than other subjects, with a mean of 10.5, SD 2.95, and a range of 6-14. At least four of the six men appeared to have very well developed verbal skills, with vocabulary subtest scores of 11, 13, 13, and 13. These four obtained IQ scores ranging from 108 to 123. Achievement that was at grade level or not too far below grade level also may have hindered recognition of learning disabilities as underlying their classroom difficulties.

It is possible that lack of achievement within the SP group was due solely to behavioral factors, and not to learning disabilities. However, all six men in the SP group revealed that they had experienced substantial frustration when trying to achieve within the school setting. These individuals commented that they had wanted to succeed in school, and had felt a great deal of disappointment at achieving less than they felt they should. Discrepancies between potential and achievement in the SP group remained

sizeable, in spite of the special program participation that they reported. Persistent lack of progress in spite of desiring to learn and receiving individualized help suggested that SP group members did have information processing differences that hindered achievement. Behavioral factors, however, remained difficult to rule out as contributing to lack of achievement in the SP group.

Learning disabled group. Subjects in the LD group had the lowest mean IQ scores of the three groups defined on the basis of prior services (See Table 2, p. 88). These lower IQ scores could reflect a bias in learning disabilities evaluation practices or a tendency of lower IQ individuals to become involved with the court in greater numbers than higher IQ individuals. However, the IQ scores of this LD group still were substantially higher than those found in the "learning deficient" group by Bell et al. (1984).

No previous diagnosis. The group without a previous diagnosis, whose members also denied having been tutored or in special programs, demonstrated a mean IQ score which fell between that of the SP group and the LD group (See Table 2). This previously undiagnosed group showed somewhat stronger academic scores than the LD group, and weaker scores than the SP group. Less evidence of intellectual impairment may have combined with stronger academic skills to give the impression of average potential and close to average achievement across academic subjects for many individuals within this group. However, this is an unlikely explanation for the individual who had a standard score of 47 in passage comprehension, or the individuals who had standard scores below 65 in math and written language. Such individuals may have falsely denied a previous diagnosis of learning disabilities, or their teachers may not have referred them for testing, presuming that their lack of achievement was due to poor motivation.

School records were obtained for two individuals in the no previous diagnosis group. No special education records were found for one. The other had school records

that included copies of protocols of tests that might be given to diagnose learning disabilities, but no diagnostic report was included. It is possible that no formal diagnosis was made, although the pattern of test scores obtained was suggestive of learning disabilities. School records for other individuals in this no previous diagnosis group were not obtainable, either because the school districts could not identify the person, or the offender did not give permission. Individuals may have been classified in the no previous diagnosis group because there was no previous diagnosis, the individual was unaware of a previous diagnosis, or because the individual falsely denied such a diagnosis.

Head injury

The absence of medical data on these subjects, verifying the date and severity of reported head injuries, raised questions about the accuracy of the learning disabilities diagnosis, particularly for individuals who were not previously identified. The effect of any serious head injury should have been ruled out before any diagnosis within the school setting. The self-report of subjects with a school diagnosis suggested that many were identified as learning disabled during their elementary school years, previous to their head injury. However, many persons with learning disabilities, even though they experience academic difficulties, are not identified when in school. Lack of a prior learning disabilities diagnosis does not indicate that such a diagnosis could not or should not have been made. Nevertheless, when a diagnosis has not been made previous to a serious head injury, the identification of learning disabilities becomes much more complicated. The compounding influence of a serious head injury in the diagnosis of learning disabilities is a factor which was not ruled out in this study.

Drug/Alcohol Influences

Data gathered regarding these learning disabled offenders suggested frequent substance abuse problems. The possible effects of substance abuse present difficulties in

the identification of learning disabilities in adults, but also have implications for appropriate treatment measures and compliant behavior. Some offenders may need help with substance abuse problems before they can be expected to be in attendance at the LDA program, or to benefit from the program when in attendance. Such treatment may be concurrent with the the LDA program or previous to participation in the LDA program.

Simultaneous treatment. Consideration needs to be given to the offender's stress level when ordering participation in a number of programs. Some individuals were unable to tolerate the 7 day a week program participation that resulted from enrollment in substance abuse treatment, anger management, and the LDA Life Skills Program. Noncompliance could result. In such cases, the LDA coordinator needed to discuss the order of participation in various programs with the offender and with his probation counselor, working out a reasonable sequence and time span for completion of various requirements.

Instructors' knowledge of substance abuse. The prevalence of substance abuse problems mandated that LDA program instructors be prepared to deal with alcohol and drug abuse problems as they may relate to ART program components, particularly anger control. Instructors needed to be able to recognize alcohol or drug abuse symptoms in program participants. Some participants had to be confronted with abuse issues, both as to their condition during a program session, and the probable influence of substance abuse on program noncompliance or benefit.

The ability to support individuals in recovery also was needed. Substance abuse treatment programs must report relapses to the court if they become aware of them. Consequently, offenders do not tell substance abuse treatment providers if they are having trouble remaining "clean and sober". The ART program, however, is not required by an agreement with the court to report lapses in recovery from substance abuse. Offenders sometimes used the ART sessions to solicit support in their recovery. Although ART is

in no way a substitute for substance abuse treatment, the group setting can provide encouragement to maintain sobriety. Discussion about the difficulties and satisfaction found in recovery from substance abuse also may be beneficial to ART participants who deny their own drug or alcohol problems.

Measurement of Variables Other Than Recidivism

Tendency Toward Recidivism/Weekly Activity Record (WAR)

WAR's norming groups. Based upon a description of criminal activities, the LDA program clients appeared most like individuals in Jenkins et al.'s group III, whose characteristics were described as:

Awaiting trial for misdemeanor(s) or was tried in court for misdemeanor(s) or felony(s) but was not convicted; picked up for parole violation but parole reinstated (or awaiting hearing); wanted for misdemeanor(s); killed in commission of a misdemeanor; or convicted of misdemeanor and sentenced or fined (p. 6).

Jenkins et al.'s group III subjects had a mean WAR score of 10.2, with a range of 4 -16.

ART program subjects. Dilemma and nondilemma subjects in this study obtained mean WAR pretest scores of 6.15, SD = 2.18, range 2 - 11, and posttest scores of 5.82, SD = 1.65, range 2 - 8. This group of offenders had WAR scores more like Jenkins et al.'s group with no law encounters, who had a mean WAR score of 8.5, range 4 - 16. Lower scores obtained with LDA program subjects might be attributed to completion of WAR forms in a group setting, paper and pencil format, rather than obtaining the information during an interview. Answers suggested that most LDA clients read well enough to comprehend the questions; however, subjects might have answered some questions differently during an interview, or have modified some estimates of time spent on various activities if clarification were requested. For instance, when asked for amount

of time spent weekly in sleep, some obviously put down the number of hours slept daily. In scoring, a response such as 6-8 hours in this category was presumed to reflect a daily total, rather than weekly, and scored accordingly. However, the manner of administration of the WAR was consistent from pretest to posttest, and the researcher was not aware of program status when scoring protocols. The reduction in scores may represent a real move towards less criminogenic habits among program participants. Further use of the WAR with learning disabled offenders could clarify these issues.

Social Skills/The Direct Situations Test

Scoring the Direct Situations Test. Some particular problems were noted in scoring situations steps. For instance, sometimes a step directs the individual to "choose the best" solution. In a given situation, effective solutions might include either positively confronting a situation, or ignoring the situation. It can be difficult to decide if the individual has chosen the "best". Some situations, such as one referring to a difference of opinion with the judge about sentencing, may not be designed to elicit recollection of the skills intended. Confronting the judge was a situation given for expressing a complaint, but most of these offenders do not perceive themselves as in a position to express a complaint to a judge!

Some responses in the Direct Situations Test, as proposed by Goldstein et al. (1987), could include all the steps, receiving maximum scores, but come up with a poor decision. An example is the group pressure situation where friends are urging that the individual go to a pool hall when he has been told by his probation counselor to go to AA and stay out of pool halls. The person could follow all the steps and decide to go to the pool hall, a poor decision, but receive a good score for using the steps.

Interpretation of Direct Situations Test scores. Both dilemma and nondilemma groups provided a greater number of steps for skill situations on the posttest Direct Situations Test. The meaning of this increase in Direct Situations Test scores was

difficult to determine. A practice effect cannot be ruled out as an explanation of the significantly improved scores obtained at posttest both with dilemma and nondilemma clients. However, some respondents to the situations tests clearly gave briefer answers at posttest than pretest. In these cases, the posttest score often was lower than the pretest score. This pattern was particularly evident with five offenders. Observation suggested that these individuals might have been bored with a repetition of the same task, and given briefer answers. Hyperactivity and/or higher intelligence may have contributed to this tendency, as the individuals concerned were likely to have one or both characteristics. Less pressure to produce socially desirable behavior at posttest also could be a factor, because program participants by that time were aware that their responses would not be reported to the court on an individual basis.

Difficulty with oral language processing was an obvious problem for many of these offenders. The Direct Situations Test actually may elicit verbal facility; consequently, scores could reflect expressive language abilities rather than tendency towards adaptive responses in a real situations. To investigate this possibility, scores for the WISC-R vocabulary subtest were compared with situations post-test scores. However, a simple regression analysis found no statistically reliable correlation between WAIS-R vocabulary scores and Direct Situations Test scores, $F(1,31) = .081, p = .7778$. A relationship between verbal facility and scores on the Direct Situations Test was not confirmed. The increase in Direct Situations Test scores may reflect actual development in social skills for the dilemma and nondilemma groups.

Anger Disposition/Brief Anger/Aggression Questionnaire

ART program offenders and norming group offenders. LDA program client scores were more similar to those obtained by Maiuro et al. with their nonoffending control group than for their groups of assaultive individuals (See Table 8, p. 102). Although most of the LDA experimental group were not sentenced to the program for assault related

charges, a history including assaultive incidents was not unusual. The five LDA clients with current domestic violence assault charges had a mean pretest BAAQ score of 4.2, SD = 2.59, and a posttest mean of 2.1, SD = 2.56. Maiuro et al.'s domestic violence group had a BAAQ mean of 11.13, SD = 5. It is possible that, when norming data was being collected for the BAAQ, judges were sentencing only the most violent of domestic assault offenders to anger management programs. Domestic violence reports have been increasing in number, and anger management programs have now become routine for those convicted.

Denial of anger in learning disabled offenders. Maiuro and his colleagues commented that "Low scores, in particular, should be interpreted with caution given the amount of projection, denial, and minimization that is observed in some violent offenders in clinical and correctional settings" (p. 175). Could learning disabled offenders be particularly prone to denial of the likelihood of angry behavior, possibly due to learned helplessness? Lack of reflectivity or lack of learning from experience in some ADHD individuals also could contribute to poor ability to predict response in a hypothetical situation.

Because it appeared that these LDA clients tended to underestimate their anger, instructors for the anger component were requested to rate the same clients on the BAAQ, based upon their observation and the clients' disclosures during anger sessions. The mean anger rating by instructors for 28 experimentals was 15.61, SD 3.315. The instructors' ratings suggested there may be a high level of denial among these learning disabled offenders.

Increased awareness of anger disposition. Eleven out of 34 experimental subjects, almost one-third, reported a higher posttest level of anger than their pretest anger score. Perhaps some of these individuals became more aware of their own anger levels during the program. Heightened awareness could be a positive first step in dealing with violent

behavior. In any case, such a cross-over suggested that BAAQ differences from pretest to posttest may not be very meaningful when interpreted in a straightforward manner.

Interpretation of BAAQ scores. Thirty-four experimentals had a mean pretest BAAQ score of 6.68, SD = 3.72, with a range from 0 to 17. Posttest scores ranged from 0 to 11, with a mean of 6.38, SD = 3.83. Maiuro et al. (1987) suggested that a BAAQ score of 9 or above indicated a fair likelihood of anger dyscontrol that may involve interpersonal violence. Of the dilemma group, 5 out of 16, or 31%, obtained a score of 9 or above at pretest. At posttest, 50% of the dilemma subjects, 8 out of 16, had scores of 9 or above on the BAAQ. Within the nondilemma group, only 22%, 4 out of 18, had BAAQ pretest scores of 9 or more, while 17% obtained similar scores at posttest. These BAAQ posttest score differences between the dilemma and nondilemma groups are reflected in Figure 1 on page 104.

Relation of BAAQ scores to recidivism. Could dilemma subjects have come to a more realistic appraisal of their own anger/aggression levels, which contributed to program effectiveness? Or perhaps dilemma subjects, with more openness about their angry tendencies, derived more benefit from the anger management component in particular? It also may be that an individual has a tendency for violent incidents, but that these are sufficiently infrequent that they might not be reflected on district court records during a six month followup period. Such possibilities could be examined in subsequent research during a longer followup period.

Measurement of Recidivism

In/Out Migration from the County Area

Post-program contact with clients suggested that some may have had no subsequent offenses on King County records because they had moved from the area. However, these highly mobile individuals also may move back. In one case, a wife reported that her husband had moved to another county; however, he was seen locally by one of his

classmates within a month or so. Other program participants had records in adjacent counties that were not reflected in recidivism figures obtained in King County. There is no reason to believe that such in and out migration or place of offending behavior affected program participants to a higher degree than controls.

Jail time served after program completion might also affect availability for subsequent offenses. This factor would be more likely to reduce recidivism among controls subsequent to sentencing than among program participants, because no program participants had jail time pending at the time they were in the program. It would take some time for the court to sentence experimental subjects to jail for a subsequent offense, probably beyond the current six month followup period.

Measurement of Previous Offense Record

Measurement of mean number of charges previous to program completion or sentencing was calculated primarily by using the average number of charges over the time period reflected on the district court records from the first charge recorded up until the charge that resulted in screening and identification. An alternative method was possible, which was to examine the actual number of charges during the six months previous to program completion or sentencing.. No difference in the significance of outcome measures was seen when using either measure. However, the two measures indicate different aspects of previous offending behavior.

The first approach to looking at previous rate of offending was to examine charges on the district court records during the total period from an offender's first offense to his sentencing date or program completion date. This period represents a "window of opportunity" for offenses, and evens out the effects of temporary migration in and out of the county. It also could take account of the rate of offending for those who had just moved into this area, as their "window" would be smaller, in proportion to their number of charges. However, this approach does not take account of those whose offenses

primarily related to substance abuse problems, and who experienced a dramatic drop in offenses when those problems were treated successfully.

The second method to measure prior offense rate was to examine the number of charges during the six months previous to program completion or sentencing. The potential drawback of this measure was that sometimes offenders were out of the county for some period during that time, or may have been serving some time in jail. The positive aspect of using the six months just prior to program completion or sentencing is that the period of time concerned is closest to the six months following program completion or sentencing. Predictors which are close in time to the predicted outcome often are the most reliable. However, the number of offenses during that particular 12 month period could underestimate the usual rate of offense. Often there is some delay between an offense and court sentencing. Offenders could be particularly careful during that period, as well as being careful just after sentencing. The number of charges on district court records could be depressed during this 12 month period by these tendencies.

There appeared no way to integrate the positive and negative aspects of these two measurements of previous offense rate. Each measure reflected slightly different aspects of previous offending behavior. The comparison being made could dictate which measure is to be preferred.

Limited Number of Subjects and Followup Period

The interpretation of data from this study is restricted by the relatively small number of subjects and the short period of time for followup. Both factors impacted the ability of the data analysis to demonstrate significant differences, as well as evaluating any long-term benefits. When examining a direct measure of recidivism in the district court records, only the dilemma version of ART produced a suggestion of reduced recidivism. This latter, however, was not statistically significant, possibly due to the small number of subjects and the low incidence of offenses during the six month followup period. A

longer followup period is needed when examining program effect upon actual recidivism.

Moral Education/Dilemma Effects

The primary focus of this research was to demonstrate a reduction in actual recidivism. A fair amount of research has substantiated that moral education based on Kohlberg's theory can be effective in raising levels of moral reasoning. However, it is by no means certain that moral reasoning translates directly into moral action.

It is entirely possible that dilemma discussion had other effects upon participants than raising moral reasoning levels. These can only be hypothesized, based upon a knowledge of the clients and observation of their interactions during sessions. First of all, participants enjoyed the dilemma discussions, demonstrated both by their animation during those sessions and their comments at posttest. High affective involvement could have increased the saliency of decision making in their scheme of values, thus heightening motivation for moral decision making. If learned helplessness were a problem perhaps they developed a sense of efficacy while discussing various moral choices. Or, for those who tended to be impulsive, possibly the desirability of reflecting upon choices and consequences before acting became more important in their scheme of priorities. Exposure to the opinions and values of others may have helped some individuals to reexamine some of their past behaviors. Dilemma discussion could help to reduce subsequent offenses for a number of reasons in addition to, or other than, having raised individuals' levels of moral reasoning. Such possibilities could be investigated in the future.

Treatment Issues

Involvement in Other Programs

Court ordered participation in other programs was frequent. Self-report at the time of testing was relied upon to reveal previous treatment. Participants might be mandated to participate in a variety of other programs, but given a one or two year period in which to

satisfy the requirements. Concurrent or subsequent participation in other programs could contribute to reduced recidivism. There is no reason to believe that such previous, concurrent, or postprogram interventions would affect program participants differently than controls, however, this possibility was not ruled out. Furthermore, concurrent treatments and limited financial resources mandate that programs be offered with a sliding scale or a minimal fee to these learning disabled offenders.

Program Sessions

The session on learning disabilities was an addition to Goldstein et al.'s (1987) ten week program outline. It is unknown what effect this may have had on program outcome compared to ART without this session; however, dilemma and nondilemma groups were combined for the LD session, so there should have been no confound due to different information or presenters. Program participants appeared interested in sharing the frustrations they had experienced in the school setting, and the effects they believed school failure had on their self-esteem and behavior. They also expressed appreciation for the opportunity to discover more about learning disabilities. One individual disclosed that the better understanding of learning disabilities gained during the ART program gave him hope that he could be successful in a postsecondary education setting. When interviewed by phone approximately 9 months later, the young man said he had been obtaining good grades in drafting courses at the community college where he had enrolled.

The time spent on each of the three Aggression Replacement Training components was shortened when compared with Goldstein et al.'s implementation with incarcerated offenders. In that setting, each component was presented individually for one hour long sessions, which were held three times a week, adding up to 30 hours of training. In the community, once weekly sessions appeared most practical. The ART program itself was presented for a total of 11 weeks, during two hour periods, for a total of 22 hours of

instructional time. Less instructional time could mean less effectiveness in reducing recidivism, although this might be offset by the benefits of being in the community, as opposed to incarceration. If expanded instructional time appears desirable, it should be included within the regular ART program. Although almost all program participants said that they enjoyed the sessions, few chose to participate in a voluntary support group that was made available to them as a followup to the program.

ART without dilemma discussion.

Why did ART without dilemma discussion seem no more effective than no treatment, as reflected by district court charges? Social skills and anger management programs in the past have demonstrated positive effects with learning disabled individuals and with offenders. However, most of these positive effects have not examined actual recidivism as the outcome measure. It could be that social skills programs and anger control training facilitate skills development that is insufficient to reduce future law encounters. Social skills training and anger control could not be expected to counteract the difficulty that offenders have with organizational skills or memory problems. Lack of organizational skills, characteristic of many individuals with attention disorders, could still lead to charges such as not carrying an insurance card, an actual offense for one program participant after program completion. Program participants may still be employed in low paying jobs, which affects their ability to pay court fines, and they may still have low reading skills, which result in the misunderstanding of written communications from the court. Memory difficulties could continue to contribute to forgotten court dates, resulting in additional citations for failing to appear. There may be many other areas of functioning that need remediation in adult learning disabled offenders. The effectiveness of ART could be enhanced if deliberately supplemented with other types of programs.

Dilemma discussion could have contributed to a lower tendency towards recidivism and the lower frequency of recidivism observed for the reasons that were hypothesized by Goldstein. That is, dilemma discussion contributed to the effectiveness of social skills training and anger control. This study tends to support Goldstein's supposition about the value of moral education, because dilemma and nondilemma groups were treated in the same manner except that one group received the dilemma discussion and the other had additional skill building in its place.

Summary

Many facets of this study warrant extended discussion. There are a number of confounding factors that need to be considered when examining ART program effectiveness with these learning disabled offenders. Some concerns can be more easily addressed than others. For example, results can be analyzed after a longer followup period, and data can be collected on more subjects. A more complete diagnostic testing can provide better defined diagnostic classifications. Other elements, such as non-random referrals and program participation, are not so easily addressed when working with offenders. Many complex issues remain to be investigated.

CHAPTER 7

Evaluation and Recommendations

Many circumstances affected the generalizability of results from this study to other groups of offenders, or even subsequent groups of learning disabled offenders from the same court system. Questions that may be of interest to future researchers were raised regarding age, IQ levels, academic strengths and weaknesses, screening and diagnostic procedures, head injury and substance abuse, the measurement of recidivism and program benefit, and the basis for positive effects from dilemma discussion.

This study identified procedures for screening, diagnosing, and enrolling learning disabled offenders in the ART program and interfacing successfully with the court system. Study results provided limited support for Aggression Replacement Training (ART) with young adult male learning disabled offenders with current misdemeanor or gross misdemeanor offenses, but only with the inclusion of the moral education component. These results were substantially in agreement with studies by Goldstein et al. (1987) using ART with undifferentiated groups of offenders, but also suggested that the program may be effective in a community setting with adult learning disabled offenders. Further investigation of the usefulness of ART in a community setting appears warranted.

Screening and Diagnosis

Screening that is based on educational history and a cursive writing sample appears to be most effective in identifying offenders for more complete testing. An educationally based screening should continue to be explored. An expanded diagnostic battery is preferred for the identification of learning disabilities, and produces a more clearly defined diagnosis of information processing strengths and weaknesses. Subsequent studies would benefit from collecting more detailed medical history to investigate the confound of head injury when making a learning disabilities diagnosis.

The significantly lower scores obtained with these subjects for math and written language suggested that the diagnostic battery, at a minimum, needs to include measures of skills in reading, math and written language. Math and written language deficiencies may be important indicators of the pattern of learning disabilities often found in offenders. Use of these additional academic measures should be maintained when identifying program participants.

Supplements to ART Treatment

ART, as a treatment for learning disabled offenders, could be supplemented with treatment programs beyond the ones currently in use by the court. Some offenders indicated that they wanted to develop their academic skills. Participation in ART could be accompanied by a family program, so that relatives and partners could be trained to support offenders' use of the skills that they learn in ART. Relatives and partners also may be interested in finding out more about learning disabilities. Some ART participants have been interested in community resources or support groups for people with learning disabilities. These and other supplements to ART could enhance its power to promote a positive community adjustment.

Outcome Measures

Indirect Measurements.

Measurements such as the Direct Situations Tests, WAR and the BAAQ provided some interesting information regarding these offenders, and may be useful for short-term evaluation. Reductions in WAR scores particularly may have some validity, and its use with learning disabled offenders should continue to be examined.

Interpretation of the Direct Situations Test was most difficult to support. The Direct Situation Test probably is most in need of modification. Some Direct Situation Test items might be improved by making the antecedent behavior clear, rather than ambiguous. An alternative approach, requesting clients to rank solutions from the most to least desirable,

might counteract expressive language problems and more accurately reflect social judgment. Choosing the solution best for the individual or best for the other(s) might be facets of the judgment needing differentiation. Further, it always must be kept in mind that social judgment may not translate directly into a lawful or wise course of action.

In subsequent studies, BAAQ scores, pre and post, could be examined along with the criminal history of particular offenders to see if higher scores at posttest appeared to reflect a more realistic appraisal of anger/aggression tendencies. As discussed above, a move toward higher scores could be desirable among clients who tend to deny their anger. Higher BAAQ scores for such individuals might be followed by fewer assaultive incidents, rather than more.

Recidivism.

Actual reappearance in the court system appears to be the most telling measure of program effectiveness. Long term followup with a larger number of subjects is recommended to determine whether or not ART can lower recidivism rates and maintain reduced court involvement over time. IQ levels should continue to be investigated as they relate to program benefit and recidivism.

ART Program Use with Female Offenders

The use of ART with female learning disabled offenders also should be evaluated. The LDA is beginning female offender groups using the ART program. There is some indication of the effectiveness of similar programs with female offenders (Chalmers & Townsend, 1990), at least when developing social perspective taking skills through modeling and role playing. The effectiveness of the incorporation of the moral education component of ART should be examined with these women's groups. Learned helplessness also may be a problem for learning disabled women. At least one investigation found that learning disabled girls were significantly more likely than non-learning disabled girls to attribute their failure to an uncontrollable, internal factor, which

was insufficient ability (Licht, Kistner, Ozkaragoz, Shapiro, and Clausen, 1985). These girls also demonstrated less persistence than their non-learning disabled peers. Learning disabled women may see themselves as even less powerful in making moral choices than learning disabled men. Dilemma discussion could enhance a sense of the need and the power to make choices, and contribute to reduced recidivism in learning disabled women.

The Basis for ART's Effectiveness with Learning Disabled Offenders

Research in the future may continue to support the dilemma component of ART as an effective addition to the social skills training and anger management in reducing recidivism. If so, the basis for its effectiveness should be examined. For example, do hyperactive individuals gain in reflectivity during this process? Are levels of moral reasoning raised? Do offenders gain an increased sense of direction and control? Are they more aware of their moral responsibility for the consequences of their choices? The answers to such questions could help to refine and focus effective treatment for adult learning disabled offenders.

Summary

ART's ability to reduce recidivism with adult male learning disabled offenders in the community has received some support from this research. Appropriate rehabilitation is a fertile field for investigation, with many more questions raised by this study than were answered. Effectiveness of the program in reducing recidivism is the paramount measure of success from the corrections point of view, and should continue to be investigated as an outcome measure with ART.

The court system is currently in crisis over a number of issues, including its own lack of resources. Implementation of a program for learning disabled offenders requires not only compliance from the offenders, but ability on the part of the court and probation systems to access such a program when appropriate. Too often, those dealing with offenders do not recognize that intervention needs to address the unique learning styles of

learning disabled offenders, nor is there clear communication between agencies. Such obstacles can be as difficult to hurdle as working with the offenders, requiring both knowledge and an extra measure of effort from the providing agency and the corrections systems.

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Appendix A: Weekly Activity Record

WEEKLY ACTIVITY RECORD

Name _____ Date _____

Enter in the space provided the number of hours in a typical week spent in each activity.

- a 1. JOB. Hours per week spent in occupational activities....._____
- c 2. SLEEP. Hours per week in day and night sleep....._____
- a 3. Hours spent at meals and snacks. Include time for meal planning and preparation....._____
- a 4. CLEANLINESS AND GROOMING. Hours spent at bathing, shaving, shampooing, hair combing, nail fixing, house cleaning, redecorating, clothes care, and other cleanliness behaviors....._____
- a 5. RELIGIOUS BEHAVIOR. Hours spent at church and Sunday school, in prayers, Bible reading, etc....._____
- a 6. SHOPPING. Food, drink, clothes, shoes, toilet articles, looking, etc....._____
- a 7. A. PHYSICAL ACTIVITY. Exercise, jogging, active sports.
B. HEALTH. Visits to MD, Dentist, health aids, and acts....._____
- a 8. HOBBIES. Specify main one....._____
- a 9. INTELLECTUAL ACTIVITIES. Studying, reading for improvement, etc...._____
- b 10. WATCHING, READING, AND LISTENING ACTIVITIES, TV, radio, news, records, music, sports, magazines, light fiction....._____
- a 11. FAMILY ACTIVITIES. Hours spent with parents, spouse, children, brothers/sisters, movies, dining out, outings, talks, phone calls, letters, visits, etc. (actually interacting)....._____
- b 12. SOCIAL BEHAVIOR. Parties, games, dates, talking with other than family....._____
- c 13. SEXUAL BEHAVIOR. Engaging in and planning and preparation for all forms....._____
- b 14. ANTISOCIAL BEHAVIOR. Fighting, verbal or physical, overuse of alcohol or drugs, other deviant behaviors, social withdrawal....._____
- c 15. DAYDREAMING. Fantasizing, "doing nothing", "thinking about thinking," "sitting around"--solitary behavior....._____
- b 16. TIME SPENT WITH MALADAPTIVE ASSOCIATES INCLUDING EX-OFFENDERS....._____
- b 17. TRAVEL. Commuting to and from work or to and from leisure activities_____
- b 18. WAITING. Waiting for action to start, driving around, etc....._____
- 19. SCHOOL. Hours spent at school....._____
- 20. ORGANIZATION. Hours spent in organizational activities, e.g., extracurricular clubs, church, social, athletic, etc....._____

APPENDIX B: Direct Situation Tests

(As recorded)

On the tape you are about to hear, there are brief descriptions of situations people often get into. As you listen, you will hear situations described one at a time, and then you will be asked after each one what you would do if you were in that situation. So, for each situation you hear, please try to pretend to yourself that it is really happening to you, and then tell what you believe you would actually do in that situation. Tell your answer to the person at your table, and he or she will write it down. Your answer will be kept in the strictest confidence.

Thank you for your cooperation.

1. The judge has just placed you on probation for another six months. You think you should be let off probation because you haven't had any further offenses. What would you do?
2. You are always doing the hardest work on your landscaping crew. None of the other workers are helping you out. What would you do?
3. You just bought a pair of sneakers and left the store and now you realize that they didn't give you the correct change. They shortchanged you. What would you do?
4. You share an apartment with a friend, who is always using your things without asking you. What would you do?
5. One of your friends is very upset. He has just been found guilty by the judge for something someone else did, although he was there. What would you do?
6. A friend tells you that he has just received a phone call from his girlfriend, and she has broken up with him. What would you do?
7. A friend has just told you that his brand new stereo has been stolen. What would you do?
8. Your neighbor tells you that he has just been laid off from his job. What would you do?
9. You are scheduled to appear before the judge, who will decide whether you go to jail or get probation for your offense. What would you do?
10. You have been caught smoking a joint and you know that you will have to talk about it with your probation counselor when you go in to see him tomorrow. What would you do?
11. You have to go talk with your community college instructor, to discuss an earlier incident in which you have been disrespectful and have cursed at her. What would you do?
12. You have to go to your doctor and tell him that you think that you may have VD. What would you do?

13. A fellow worker is angry with you because he feels that you have cut in front of him in the cafeteria line. What would you do?
14. The friend who shares your apartment is angry with you because you have not cleaned up the kitchen when it was your turn. What would you do?
15. Your mother's boyfriend is drunk and getting a little nasty. It looks like he is getting up and coming over to hit you. What would you do?
16. The coach of your soccer team is angry with you because you did not show up for last week's game. Your team had to forfeit because it didn't have enough players. What would you do?
17. A friend to whom you lent a pack of cigarettes is now refusing to pay you back. What would you do?
18. You just found out who stole your new soccer shoes last week. What would you do?
19. Someone just bumped into you and made you spill your drink and your popcorn all over the floor, and then told you to "watch where you are going". What would you do?
20. One of your co-workers has just told you that you are a stupid ass because you didn't read the instruction manual for the brush trimmer, and you put the blade in wrong. What would you do?
21. A co-worker has just learned that his brother is going to be in town for a few hours during his work shift. His shift is beginning just as you are quitting. What would you do?
22. The person standing next to you and looking at the arraignment calendar at the court has never been to court before. He doesn't know where to go. What would you do?
23. The person next to you in your community college math course is having trouble understanding the assignment, but you are having no trouble. What would you do?
24. You are walking down the street and you notice an elderly woman standing beside her car, which has a flat tire. What would you do?
25. You are accused by a store owner of taking a new pair of pants from his store. What would you do?
26. Your creative writing teacher accuses you of being lazy and not handing in assignments. What would you do?
27. You are accused by the apartment manager of having set off a fire alarm. What would you do?

28. Your friends accuse you of always thinking of yourself first. What would you do?
29. On Friday night three friends have just asked you to go to the pool hall with them. You have told your probation counselor that you are going to stay out of the pool hall and attend AA twice a week. What would you do?
30. You are at a party in a friend's house and some of the other guys ask you to help search for any liquor in the house. What would you do?
31. It's Friday and your auto engine repair instructor has scheduled a mandatory exam. You will fail the course if you are not there. Your best friends want to go camping in the mountains. They ask you to go with them and provide the transportation. What would you do?
32. Three friends pull over in a car you think they may have stolen. They ask you to get in and go for a ride. What would you do?
33. Your best friend has just arrived from out of town for a visit. You haven't seen him for 10 years, and you are really happy to see him. What would you do?
34. Your younger brother, who is 10 years old, is getting high every day. You really care for him a lot. What would you do.
35. You have really made a lot of progress in your reading, and you no longer need tutoring. You must say goodbye to your reading tutor. You really have come to like your tutor a lot. What would you do?
36. Your girlfriend has just told you that she loves you. You really feel great about her too. What would you do?
37. You have just received the results of your GED exam and have found out that you did not pass. What would you do?
38. You spent 3 weeks trying to help your young nephew learn how to ride a bicycle, and he still has not learned. What would you do?
39. In a woodshop class, you have been working on building a bookcase, but it just does not come out right. What would you do?
40. You have just found out that your car has failed its emissions control inspection after you have spent 6 hours and \$100. in parts to tune it up. What would you do?

Adapted with permission from Direct Situations Test,
Goldstein and Glick, 1987.

APPENDIX C: Brief Anger/Aggression Questionnaire

Name _____ Date _____

BAAQ

Directions: Read the statements listed below. Rate each one so that it describes your current way of feeling or behaving.

1. When I really lose my temper, I am capable of hitting or slapping someone.

0	1	2	3	4
Extremely unlikely	Unlikely	Possible	Likely	Very likely

2. I get mad enough to hit, throw, or kick things.

0	1	2	3	4
Not at all	Rarely	Sometimes	Frequently	Very frequently

3. I easily lose my patience with people.

0	1	2	3	4
Not at all	Rarely	Sometimes	Frequently	Very frequently

4. If someone doesn't ask me to do something in the right way, I will avoid, delay doing it, or not do it at all.

0	1	2	3	4
Not at all	Rarely	Sometimes	Frequently	Very frequently

5. At times I feel I get a raw deal out of life.

0	1	2	3	4
Not at all	Rarely	Sometimes	Frequently	Very frequently

6. When I get mad I say threatening or nasty things.

0	1	2	3	4
Not at all	Rarely	Sometimes	Frequently	Very frequently

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APPENDIX D: EDUCATIONAL HISTORY

Name: _____ Today's Date: _____ Your Birthdate: _____

Address: _____ Phone # _____
 (city) (zip code)

Do you have a native language other than English? (yes___)(no___) If yes, which language? _____

Did you dislike school? (yes___)(no___). If yes, what did you dislike most? _____

Did you repeat any grades in school? (yes___)(no___) If yes, which grades? _____

Did you ever attend special classes or have a tutor? (yes___)(no___). If yes, which grades? _____

Which subjects? _____

How would you describe your abilities in the following areas:

	very poor	poor	average	above average
reading	_____	_____	_____	_____
spelling	_____	_____	_____	_____
writing	_____	_____	_____	_____

Do others in your family have difficulty with reading, spelling, writing or math? (yes___)(no___)
 Who? _____

Did you complete high school? (yes___)(no___) If not, did you get a GED? (yes___)(no___)

Ever had a head injury?(yes___)(no___). If yes, age?___ Were you unconscious? (yes___)(no___)
 How long?__

Describe what happened: _____

Elementary School

High School

Best subjects: _____

Usual grades in best subjects: _____

Worst subjects: _____

Usual grades in worst subjects: _____

Have you ever been told you had learning disabilities, dyslexia or were hyperactive? (yes___)(no___)

If yes, by whom? _____

Have you ever taken prescribed medication because of hyperactivity: (yes___)(no___)

EDUCATIONAL QUESTIONNAIRE - RELATED ACTIVITIES

QUESTIONS

	Not at all	Just a little	Pretty much	Very much
1. Do you have problems following spoken directions?	_____	_____	_____	_____
2. Do you have problems remembering what you heard?	_____	_____	_____	_____
	Not at all	Just a little	Pretty much	Very much
3. Do you have problems telling a story so that people understand?	_____	_____	_____	_____
4. Do you have problems recalling the exact word you want to use?	_____	_____	_____	_____
5. Do you have problems remembering the names of people or things?	_____	_____	_____	_____
	Not at all	Just a little	Pretty much	Very much
6. Do you lose track of time?	_____	_____	_____	_____
7. Do you have problems keeping to a schedule?	_____	_____	_____	_____
8. Do you get lost?	_____	_____	_____	_____
9. Do you have problems knowing which is right or left?	_____	_____	_____	_____
10. Do you have problems concentrating on your work?	_____	_____	_____	_____
	Not at all	Just a little	Pretty much	Very much
11. Do you have trouble writing so that people can read it?	_____	_____	_____	_____
12. Do you have trouble using hand tools?	_____	_____	_____	_____
13. Do you have trouble seeing clearly?	_____	_____	_____	_____
14. Do you have trouble drawing pictures?	_____	_____	_____	_____

	Not at all	Just a little	Pretty much	Very much
15. Do you dislike your present job?	_____	_____	_____	_____
16. Do you have problems keeping friends?	_____	_____	_____	_____
17. Do you avoid social functions -- parties, dances, etc.?	_____	_____	_____	_____
18. Do other people have problems understanding you?	_____	_____	_____	_____
19. Do you have problems understanding other people?	_____	_____	_____	_____
20. Do others have problems getting along with you?	_____	_____	_____	_____
20. Do you have problems getting all your work done?	_____	_____	_____	_____
22. Do you get upset easily?	_____	_____	_____	_____
	Not at all	Just a little	Pretty much	Very much
23. Do you have problems reading a newspaper?	_____	_____	_____	_____
24. Do you have problems remembering what you saw?	_____	_____	_____	_____
25. Do you have problems reading a map?	_____	_____	_____	_____
26. Do you have problems doing math?	_____	_____	_____	_____
27. Do you have problems when someone shows you how to do something?	_____	_____	_____	_____
28. Do you have problems using directions to put something together?	_____	_____	_____	_____

IN CURSIVE WRITING, PLEASE WRITE TWO OR THREE SENTENCES TELLING WHAT HAPPENED THAT LED YOU TO BE ARRESTED OR CHARGED:

APPENDIX E: Comments at Posttest

These comments were participants' oral responses (except where noted) during their final session. Each group contains the comments of those who completed the program with that group, which was not necessarily the group with which an offender began the program.

QUESTION 1. WHAT WAS THE BEST OR MOST HELPFUL PART OF THIS PROGRAM?

GROUP 1 (Dilemma version):

Anger Management--learning to know you're angry and what to do to be able to control it, and not go overboard. sit back--think of ABC's of anger, think of what I should do. I loved the dilemmas.

Listening to other people--gives you a reality sense (what drives someone, why they do what they do). Funny, sometimes--The things taught take actual "doing"--should be more specific to person's actual need, not so general.

The people--The instructors are willing to try new things, open--didn't feel you couldn't express yourself. --Good to be in a group--being around others is important to me--might try another class at another time soon.

Hearing other people's points of view. It was something I've already considered.

Learning how other people handled situations--it's really interesting how some people look at their problems--helped me to understand that some people really think this way. People all think different. Dilemma resolution one of the more enjoyable parts. Anger management most helpful.

Problem solving in small groups--get to hear other's views and can choose the best idea. You look at possible outcomes, etc.

Reminded me of quite a few things I already knew and hadn't been using. (I don't believe I had a real anger problem, however.)

The first hour, then--I was interested for about an hour--didn't get time to grow to hate it.

All of it --pretty interesting. dealing with relationships--things like that--approaching people--stressful situations... Yeh, I did (use skills).... anger--ABCs...

GROUP 2 (no dilemmas- extra skills building):

Skill building--didn't need anger control--. helped me realize how to approach people & communicate with them.

Learning to deal with my own actions and really feel how I'm feeling about different situations--more in touch with my feelings.

Identifying cues (anger control)--more concrete than the other anger management class I am taking. Also helpful--knowing anger sequences (triggers to self-evaluation)-- self-evaluation especially helpful. Skills helpful.

GROUP 3 (Dilemma Version):

No idea--getting done

sitting there and talking, I guess... helped me out with my friends--using some of these skills on them.

Anger Control--helped me realize what I was capable of when I was angry-- where to forward it--how to use it.

Get away from work. Met a friend that I went through high school with. Learning how to keep myself calm in angry situations. Different faces in a different environment. Got me away from everyday situations at home and at work. And I met some new people. Learning better how to speak to others--to a group without being embarrassed or nervous.

GROUP 4 (No dilemmas -- extra skill building):

Realizing when I was mad and know how to control it. Helped me put things in the right perspective.

I got Saturdays off (was scheduled to work otherwise). It made me think. Gave me a chance to meet new people.

Learning the cues to know when I'm angry so I can do relaxers so I can handle problems before it all blows up. Let people tell their side of the story. Do the reducers. Relax--then come up with a response.

GROUP 5 (No dilemmas -- extra skill building):

Learning to deal with aggressive behavior. Been having to deal with my roommate--taking time outs--deep breathing--get away...

Nothing (questioned) Most all what I knew already. All repeat. From programs I was in before.

Learning some things about myself and other people. ABC thing--kind of interesting. Listened to other people. A few similar things to how I am. In October was the last time I was angry. Actually got to be kind of fun going to the classes. Made a couple of new friends.

Understanding my kids. Listening to them more, I still get angry with 'em but, instead of blowing up, I talk with them more about it. Before "it was always my way"--just like my dad. I always told myself I wouldn't be like that. Anger techniques--talking with everybody. Very helpful class--enjoyed the classes. Met new people. I think the classes are good.

Learning about anger control. All helpful hints . Got into more discussions with the role plays--helps more than just talking.

It had me think about some of the things I do. Now if I have an accident, I use anger techniques to control myself--calm down. Techniques help. About time someone got to this in the system --people need reminders.

GROUP 6 (Dilemma Version):

Dealing with your Anger in a better way. Taught you reducers & all that stuff--steps to take so when you get angry you would have things fresh in your mind so you know how to deal with it (anger). Got me to think more about anger & how to control it.

The instructors. Good attitudes, tried to go out of their way to help certain persons' coping.

Anger control. Thinking things over. I saw myself using it a few times instead of doing some things I wouldn't want to do. It gave me a different way of looking at things. Cues--like if you can see somebody is angry, best way to help him out without getting him more mad. I use it when I visit my sister. I don't like her boyfriend.

The best part is I won't have to go to any more because the probation counselor accepted this in place of other anger management program ordered. Can't think of any other good part. I quit marijuana two months ago. I notice my thinking is better now. My legal problems are getting resolved.

Everything. I liked 'em all. Liked anger control best. Some things I never heard of, like "handling problems"--like triggers, cues, etc.

Knowing I don't have anger problems. I'm a pretty mellow person. Anger control was interesting, never hurts to learn. Dealing with situations--this would help me out.

Knowing the pros and cons of the things I didn't realize happens in our lives that we really need to learn with. Slowing down, thinking about situations, consequences. "Family has a history of keeping it inside (anger). then it blows up". The class helped a lot in how to get things out. Class woke me up, brought me to a level--maybe I'm not a bum -- (I can) rise above all of this. (I) can realize my anger now, and go on to bigger and better things.

GROUP 7 (No dilemmas -- extra skill building):

Allowed me to change from Wednesdays to Saturdays. Nothing struck me as something new--keyed more to LDs who strike out in frustration/ anger. I've never had that problem.

Don't know. Didn't seem to make any difference with the way I handle anger. I already think about consequences, etc. Helped me realize there are a lot of other people out there who are just as angry as I am. I know a lot of people who need this a lot more than I do.

Can't think of anything--went through a lot of this in treatment 1 1/2 years ago.

Smoke break (a joke). I learned a few small things about controlling my anger before it gets to bothering me. (It) has helped me at work -- has helped out my attitude. I liked the "pleasant imagery" (anger control technique)

Skills--learning how to deal with situations through the skills--all of them--especially anger reducing skills-- how not to throw things, cuss out people, how to walk away. Everybody got along real well. (What I like best was I) made friends, (felt) comfortable talking with everybody.

GROUP 8 -(Dilemma Version):

The anger management part of this is the most helpful for myself I have Bettered myself 110%. The whole course has improved me. (as written by participant)

Learning how to deal with other people's behavior patterns & situations--techniques you use. I liked part about group participation-- a big plus. See a little different side when doing dilemma--liked dilemmas best -- interesting to hear opinions.

QUESTION 2. WHAT WAS THE WORST OR LEAST HELPFUL PART OF THIS PROGRAM?

Group 1 (Dilemma Version):

(first half) Expressing a complaint, etc.--didn't need that, already understood how to do that.

Dilemma resolution? maybe--

Too much review--kind of wore it out.

Life-skills lessons

Dilemma resolution--just people's opinions about morals (Fun but not learning)

Missing time--when I had other engagements.

Nothing, except having to come. Program pretty well worked out. Would have wanted an outline first.)

Everything else--didn't think it needed to go on so many weeks.

Group 2 (No dilemmas - extra skill building):

Don't think of anything--anger management for me was the least helpful.

Session on responding to failure--not right to think of every obstacle as failure--that you need to think about yourself as a failure. A lot of things that happen are not really failures (but did use skill on responding to angry people when in a car accident.)

Don't think of anything.

Can't put a finger on anything. All fascinating stuff--can't say not helpful-- a good reminder that I'm right.

GROUP 3 (Dilemmas):

don't know -- having to go every Saturday.

There wasn't any--didn't like role plays--too shy

Having to be there--being ordered to be there. Not having an acceptable explanation as to why I was there (discussed) ...makes some sense.

It was a big bother (going) back and forth.

GROUP 4 (no dilemmas -- extra skill building):

Nothing.

Going to it. I really don't get mad at all. Anger part--it was good to know things. If I ever do get to the point that I do get that mad, then I do have it. Time away from work--cost me more than the \$100. the judge gave as alternative.

There wasn't really one. (You should) have worksheets about the topic. Give situations and look at different options. Compare your answers with some factual answers. When I read I get a headache after 45 minutes. I liked the first (smaller) group better. Hard to talk in a group.

GROUP 5 (No dilemmas -- extra skill building):

No opinion. Thought it was strange that women didn't have to be in these classes. Having to keep coming back to Redmond from Seattle. I don't like Redmond...

Nothing. Nothing wrong with it. They said it works. I do stuff like that already.

Nothing. In the beginning--going over and over--finally figured it out--there was a reason behind it--"sinking it into our heads"--no complaints about it.

There wasn't anything that I didn't like. A couple of nights when I had (other) things to do--I had to rearrange them. (It was good that) you had to make up missed classes.

Talking about things that don't concern me. Some things that I don't do. --uncomfortable (You didn't like it?) No, not really.

Not really. Always a problem speaking in front of a crowd--role playing--but I did it and learned from it.

GROUP 6 (Dilemmas):

Driving here after work. First couple weeks seemed kinda dull. Had to make the best of it. (became) kinda fun. Where it was held was out of the way for my new job.

(Individual's name). Stuff went over common knowledge --others were not as smart or intelligent (as I am). --(They had) more trouble figuring it out. Sure it did help some people. Something you already knew. When someone brings it to your attention, you really think about it.

The testing (40 situations -- too long). (Individual participant's name) was sometimes "too much"--kinda rude.

Can't think of anything that didn't help in some way. Wasn't anything that was unhelpful. Maybe (I) do get just as angry but I do control my anger better now--I don't project out on somebody.

Nothing. (should have) more breaks--should have 3 or something-- or breaks 10 minutes long.

Nothing. I didn't see anybody that really had that kind of an anger problem. (Change something?) Don't know -- guess not -- guess everybody could use these types of skills--some more than others. I work next door to a guy like that -- he could use it. I am more of a listener than a talker.

Well, I guess everyone didn't really like to talk -- some others helped -- too personal (? how too personal?) But I'm glad I said what I did about what happened in second grade.

GROUP 7 (No Dilemma- extra skill building):

Didn't help me out at all with what I thought the program was for -- for dealing with learning disabilities (i.e. reading/writing/math, how to change an occupation successfully).

Making time to come to the program. Not anything in the program that was bad. (might) shorten it. Going over the same things were quite boring.

Too many classes. A little "drug out" on some of the points.

Classes made me fall asleep sometimes -- too much lecturing sometimes, but liked the format (generally not lecturing). Bad if too much talking and not enough action.

Anger control least helpful to me -- always has been easiest for me to do. I can control it well and I vent it in useful ways.

GROUP 8 - (Dilemmas):

No weak areas -- covered very thoroughly. Prepared and put together well--structured and scheduled well.

They're (sic) really wasn't much to the talking (sic) (taking) of a compliment-- sorry! (reference to expressing appreciation -- as written by the participant)-- don't know each other well enough (real problem was) I can't take a compliment--I feel guilty, have a problem with low self-esteem.

QUESTION 3. DO YOU HAVE ANY OTHER COMMENTS OR OPINIONS ABOUT THIS PROGRAM?

Group 1 (Dilemmas):

No--I didn't want to be here, but I'm glad I learned something--didn't waste the time.

Needed to know what the instructor's motives were right off, what was selection process (apprehension, fear possibly--) (biting nails). Should be no homework.

Anger -- how to handle yourself -- conversing with others. When hostile, I've tried it ("I understand how you feel")--it really works. Need more men trainers (Had only one out of four during the first session)--I missed Jerry. Homework turned in.

Guinea-pig status? Trying to learn from us -- kind of a nuisance. Don't know how court offense relates to LD or need for "life-skill". Glad it wasn't all testing. Didn't like homework. Make our objectives more clear.

Geared for some people "more needy" than those in this class -- others need more (People who can't control themselves--)

Listened to others--didn't learn much.... You have to take your punishment, though. Could spend money on tutoring 3rd or 4th graders.

Trainers pleasant--have been in other situations with authoritarian people--made me mad.

A total waste of time... Because everything you covered and went through--it's natural--It just seemed dumb. (?what would make it better?) Don't know-- material covered just a joke. I'm just not an angry person. It was just stupid.

Group 2 (no dilemmas-extra skill building):

Thirteen or 14 weeks went by faster than I thought it would. Good staff--nice and helpful

Really helpful--could be positive influence in their lives -- if guys give it a chance.

New skill each time could have been more integrated with anger management and anger management more integrated with skill use -- would be more helpful.

Don't know. Listen and take it in.

GROUP 3 (Dilemmas):

Not really

I liked coming to class--got a lot out of it. Interested in Wednesday night followups if offered.

Learned a few things, met some people. Had some fun--not all fun though. (?suggestions) Cut down the hours.

My dad needs to come to this class. I ran into my classmate. I could see he was using the skills he had learned in (this) class with a difficult customer. If it was mandatory for him (father) as it was for me, he definitely would learn something from it.

GROUP 4 (No dilemmas -- extra skill building):

Real good class. Recommend for anybody who has any anger problems. It will help quite a bit. All the instructors really good. Enjoyed the class.

Helped a lot of people from what I've seen. Quite a few people came in that it changed quite a bit. Trainers were good.

Classes too long--2 hours of sitting down -- gets a lot of people. Better if shorter classes and add 3 more. By the end I was enjoying it. It was pretty fun. I learned a lot of things from the classes. I was doing amphetamines when I started--I stopped during the classes.

GROUP 5 (No dilemmas -- extra skill building):

No. Leave people alone -- I'd rather that people didn't have to do the program. Nothing to do with what I was put into court for, managed to bore me almost every class. Reminds me too much of school and stuff and I'm not ready to be around school. The worst part was telling people like my father that I was coming over here for learning disabilities -- he made fun of me -- I hope you keep doing this -- (He) should get a ticket out here and get sucked into this program.

No -- nothing wrong.

I feel that It will possibly help in the future. All the trainers did a pretty good job. For example, I got pissed off at work at a couple of guys. I was getting confused and mad. I dropped everything, walked outside, and got calmed down. The waitress said she was impressed. I used things I learned in the class.

I thought the program was really helpful. When M. was talking about anger--(when in a fight)--one person staying calm.-- that puts the flame out.-- That stuck in my mind. Times when I would try and hit people's buttons -- this helped me out -- keeping calm about the situation--instead of "throwing gas on the fire".

No. It was O.K. Not as bad after all. It didn't really bother me coming Wednesday nights. It was different than I thought it would be. It turned out to be pretty cool. Everybody was nice.

I think that the program is good for people. It's gonna help 'em one way or another. The court makes you go, of course. Everybody was sociable. We talked about new things.

I learned better to deal with people and not let my personal opinions get in the way. It worked out well when the instructor went around the class and asked everyone's opinions -- so all could/would talk. I think it's a pretty good job (the program).

GROUP 6 (Dilemmas):

It was interesting--all the trainers were pretty nice.

It really is not necessary. Going to jail is what might deter me from fighting -- not this class. It tried to -- the court expects you to change people's attitudes. You can make

people think about it--you guys did a good job of that -- a little bit of knowledge there.
(But) a waste of your time.

I didn't like it at first -- then I realized it helped.

It's a lot better than going to jail! Should have these classes beginning in grade school -
- 1 hour per day -- every day -- devoted to this. Having this in school--should be
mandatory study. Everybody would benefit.

"Cool". I would like "more girls"

I didn't fill out the homework pages. I don't have any hassles -- nothing out of the
ordinary.

GROUP 7 (No Dilemmas - extra skill building):

In grade school I got in a lot of fights. (I) started Demerol in 4th grade -- "made me a
mellow fellow". (I) didn't like the way it took away my energy--wanted to sleep in
class--didn't help with learning.

No.

Not really. (Trainers were) friendly, outgoing. (There was) respect back and forth --
fairly comfortable atmosphere. (?were you uncomfortable) Cause I had to be here.
It's made me think about different things...

Should use films -- like for a situation. Acting it out was O.K. C. did a good job.
Role playing was good sometimes. A film might have been better.

The program was helpful to others in the group.

GROUP # 8 - Dilemmas

Should be continued in order to help individuals like myself.

This is a great program. I recomed (sic) if to anyone who's trying to restart a life.
(Written by the participant)

APPENDIX F: Consent Form

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

College of Education

Consent Form-LDA Life Skills Program

Researcher: Virginia A. Curulla, graduate student, Dept of Educational Psychology, 543-4011

Researcher's Statement

As a graduate student at the University of Washington, I am doing a research project to identify ways of helping people who get involved with the district court to avoid further problems there and elsewhere. I also want to learn which programs work best for which offenders. If we discover that one particular program works better than the others, we hope to be able to offer that program to those people who did not participate in it the first time. (Participation would be completely optional.)

I am asking you to participate in my research project by allowing me to use the data about you that have already been collected by the court and by the program which you have just finished.

The data that I would like to use are your test results; the background information which we obtained from you; your school records, if you have allowed us to obtain them; alcohol or drug-related problems; records of police contact during the six months before the incident which brought you to court and the six months following the training you have just finished; other sentencing measures ordered by the judge; and how many program sessions you attended. The test results will include diagnostic tests and your answers to the anger and aggression questions. Our use of the background data which you gave us will include items such as race, language background, marital status, living arrangements, typical daily activities, one or more incidents of a head injury, and your employment history. The educational data will include the types of programs that you have attended; the last grade attended; the location of schools attended; the type of degree/diploma; best/worst subjects; typical grades; best/worst academic grades; grades repeated; previous identification as hyperactive, dyslexic, or learning disabled; and whether others in your family had academic problems.

IF YOU AGREE TO PARTICIPATE, NO ADDITIONAL DATA WILL BE COLLECTED ABOUT YOU. I am only asking for your permission to use the data that have already been collected as part of your contact with the court. If you agree to let me use your data for my research project, I will code the data with a number rather than with your name. The number will be connected to a master list of names that is accessible only to me. Therefore, no additional people will have access to your identifiable data. I will destroy the master list of names after my research project is over, in approximately two years. The written report of my research will be placed in the theses section of the University of Washington Library, but you will not be personally identifiable in the report.

Please understand that although I have normal access to these data as an employee of the agency which sponsors the program, and as a program evaluator, I will not use the data for research purposes without your signed consent. You may withdraw your permission at any time.

Virginia A. Curulla 10/4/89
Signature of investigator Date

Subject's Statement

The study described above has been explained to me. I voluntarily consent to participate in this activity. I have had an opportunity to ask questions. I understand that future questions I may have about the research or about my rights as a subject will be answered by the researcher listed above.

Signature of subject Date

Copies to: Subject
Researcher's file

APPENDIX G: Learning Disabilities Identification Aid

LEARNING DISABILITIES IDENTIFICATION AID Offense: _____

Judge: _____

Name _____ Age: _____ Date _____

- | | Yes | No |
|---|-----|-----|
| 1. Dislike of school? | --- | --- |
| 2. Repeated grade(s) in school? | --- | --- |
| 3. Recalls being in special classes or tutored? | --- | --- |
| 4. One or more "poor" or "very poor" academic or school related skills? | --- | --- |
| 5. Other family members had difficulty in school or with academics? | --- | --- |
| 6. Did not complete high school? | --- | --- |
| 7. "High risk" medical factor, such as head injury? | --- | --- |

OBSERVABLE OR SELF-REPORT BEHAVIORS

- | | Yes | No |
|---|-----|-----|
| 8. Responds inappropriately to questions? Needs frequent repetition? Diff. listening? _____ | --- | --- |
| 9. Diff. expressing thoughts & recalling names of familiar people or objects? | --- | --- |
| 10. Confusion and forgetfulness about time, dates or sequences or gets lost easily? | --- | --- |
| 11. Restless, easily distracted (difficulty with concentration?) | --- | --- |
| 12. Extremely poor writing/spelling? (Or reluctance/refusal to write?) | --- | --- |
| 13. Evidence of poor self-image/social skills | --- | --- |
| 14. Reads poorly or not at all? | --- | --- |
| 15. Problems in visual comprehension? | --- | --- |

PREVIOUSLY IDENTIFIED LD, dyslexic or hyperactive?

Yes No
--- ---

Five or more of the above characteristics

--- ---

IF YES to either--
Referral for further testing _____ **Screeners' name:** _____
time/date of testing

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(206) 298 7797 (W)

EDUCATION:

1985-Present UNIVERSITY OF WASHINGTON
Doctoral program, Human Development and Cognition,
Department of Educational Psychology

1983-1985 UNIVERSITY OF WASHINGTON M.Ed. School Psychology

1973-1975 UNIVERSITY OF WASHINGTON M.Ed. Special Education -
Early Childhood

1955-1958 UNIVERSITY OF WASHINGTON B.A. Spanish

1952-1955 MARYLHURST COLLEGE Major - Spanish
Marylhurst, Oregon Minor - French

CERTIFICATION:

1/89 to Present Nationally Certified School Psychologist

12/89 to Present Washington State Professional Education Permit,
Continuing Psychologist ESA.

10/81 to Present Washington State Standard Teaching Certification,
Continuing Elementary and Secondary Teacher.

EXPERIENCE:

3/86-Present SCHOOL PSYCHOLOGIST, Seattle Public Schools.

6/87-4/90 COORDINATOR, Alternative Sentencing Program,
Learning Disabilities Association of Washington

10/85-Present CONSULTANT, Diagnostic Services,
Learning Disabilities Association of Washington.

8/84-6/85 DIRECTOR OF DIAGNOSTIC SERVICES,
Learning Disabilities Association of Washington

9/79-6/83 SPECIAL EDUCATION COORDINATOR/TEACHER,
Seattle King County Head Start and ESD #121 Head Start.

1/77-6/79 SPECIAL EDUCATION CONSULTANT,
Seattle King County Head Start.

AU'73-WI'75 PRACTICE TEACHING/INTERNSHIP, Experimental Education
Unit, University of Washington, Communication and Behavior
Disorders Preschools.