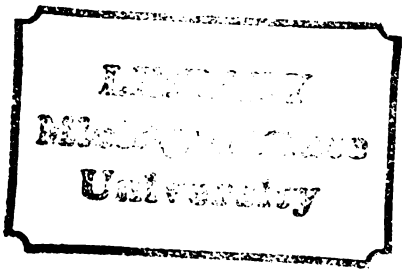

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DIFFERENTIAL IMPACT OF VARYING TRAINING/
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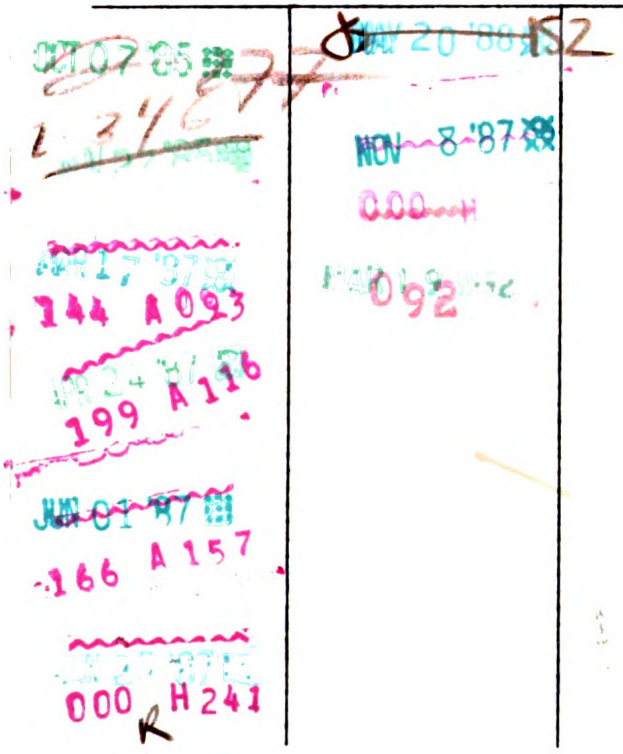

KANTROWITZ, RICKI ELLEN

TRAINING NONPROFESSIONALS TO WORK WITH DELINQUENTS: DIFFERENTIAL IMPACT OF VARYING TRAINING/SUPERVISION/INTERVENTION STRATEGIES

Michigan State University PH.D. 1979

TRAINING NONPROFESSIONALS TO WORK WITH DELINQUENTS: DIFFERENTIAL IMPACT OF VARYING TRAINING/ SUPERVISION/INTERVENTION STRATEGIES

By

Ricki Ellen Kantrowitz

A DISSERTATION

Submitted to
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ABSTRACT

TRAINING NONPROFESSIONALS TO WORK WITH DELINQUENTS:
DIFFERENTIAL IMPACT OF VARYING TRAINING/
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by

Ricki Ellen Kantrowitz

Programs using nonprofessional workers have increased rapidly over the last few decades. Although numerous questions have been raised about how such programs work, little research has been conducted which focuses on the program components.

It was the intent of this research project to experimentally examine and contrast the effects of four training/supervision/intervention (TSI) stragegies used within a nonprofessional diversion program for juvenile offenders. Nonprofessionals were college students participating in a three term psychology course. Students were presented with one of four methods of TSI (Hi-Action, Hi-Relationship, Lo-Small or Lo-Large) or placed into a control group.

Three aspects of the TSI strategies were manipulated. These were (a) specific content (behavioral contracting/child advocacy techniques in Hi-Action versus communication/relationship-building skills in Hi- Relationship versus natural helping styles in Lo-Large and Lo-Small; (b) size of training/supervision groups (six to seven students and two supervisors in all groups except Lo-Large, which had 15

students and two supervisors); and (c) intensity and frequency of training/supervision meetings (eight weeks of training, weekly supervision in Hi-Intensity groups versus three weeks of training, monthly supervision in Lo-Intensity groups.

Multiple measures were used to examine three major components of the project. These areas included the differential effect of TSI strategies on (a) youth outcome data such as school records and recidivism rate; (b) student outcome such as students' knowledge of intervention techniques, and attitudes about themselves, the course and the youths; and (c) the interaction between student and youth variables. The relationships between these variables and process scales measuring the type and extent of intervention implemented were also examined. In addition to the above, the inclusion of the Lo-Intensity conditions permitted the examination of potential attention placebo effects.

Overall, results indicated that varying TSI strategies did have differential effects on outcome and process components for targeted youth and student volunteers. The Hi-Intensity groups, especially Hi-Action, did the best with the youth and the students felt the most positive about the experience, followed by those in Lo-Small and finally those in Lo-Large. Yet, as observed in the present research, consistent relationships between program components cannot be assumed. Although Hi-Relationship youth did comparatively well, students became more negative over time about many aspects of the project experience. Furthermore students in this condition did not intervene in the manner they were expected to (such as performing more communication

and relationship-building techniques than the other groups). Although Hi-Relationship students typically performed the least amount of specific intervention tactics and Hi-Action students implemented the greatest amount, youths in the two groups did about the same. Finally, while Lo-Large and Lo-Small students did similar amounts of intervention activities and had similar attitudes, Lo-Small youth did better and Lo-Small students rated the course (TSI) experience more positively.

Several important conclusions and implications were drawn from this research. First, specific, structured TSI models appear to affect youth outcome in a positive manner. The particular content, theory, and treatment approach do not seem as important as the fact that the program is intense and provides a specific format, structure and role for the volunteer. Second, nonprofessionals seem to respond differentially as a result of what the training/supervision involves and what the intervention entails. Thus, it appears that program participation will not in and of itself affect attitude change in the expected direction. Third, systematic research using a multilevel focus and process-intervention measures is essential in understanding how various TSI components interrelate, what is done during the intervention period, and how a program works.

Other issues about nonprofessional and professional mental health workers are also discussed.

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CHAPTER I

INTRODUCTION

During the 1960s the number of programs using paraprofessionals and/or examining their impact increased rapidly. Durlak (1971) concluded after conducting a systematic search through major psychological, psychiatric and social work journals from 1960-1969 that the number of studies which dealt with nonprofessional therapeutic agents had increased every year. Others (Brown, 1974; Cowen, 1973; Rappaport, 1977; Sobey, 1970) also discussed the increase in the consideration and establishment of such programs. All were impressed by the diversity of these nonprofessional projects--in terms of who functioned as helpers, who was helped, what functions they performed and what settings they worked in. Mental health professionals, individuals concerned with community psychology, researchers, and others found many of the results of these studies to be both provocative and tantalizing--such as Poser's (1966) findings that untrained undergraduate females had more positive impact on chronic institutionalized mental patients than professional workers. The controversial nature of this study was demonstrated by the criticism (Rosenbaum, 1966) and the support (Rioch, 1966) it immediately generated. Some of the issues that this and other such nonprofessional programs raised included how selection and training of

nonprofessionals and professionals affected what they did with the target group, how effective they were and what personal characteristics of helpers contributed to their effectiveness. Those who watched the proliferation of nonprofessional programs and were interested in learning more about these issues anticipated the establishment of a number of research programs (Goodman, 1972). Yet, except for the appearance of a few studies (e.g., Goodman, 1972; Rappaport, Chinsky & Cowen, 1971), the promise that systematic research would be forthcoming in the 1970s has not been met. A majority of the more recent nonprofessional studies have continued to look at basic outcome questions rather than at the separate components of the program--e.g., training, supervision and intervention strategies--and have done so without using objective assessment measures on the target group (Rappaport, 1977; Zimpfer, 1974).

Although an innovative idea at the start, the use of nonprofessional workers as direct therapeutic agents was considered a well-established trend by 1971 (Durlak, 1971). Paraprofessional projects were expected to exceed 1,000 by 1975 (Goodman, 1972). Cowen (1973) reported that over 500 programs used nonprofessional college students to work with mentally ill, hospitalized patients. Nonprofessionals were used to work with such diverse groups as chronic hospitalized patients (Poser, 1966), disturbed elementary school children (Goodman, 1972), juvenile delinquents (Davidson, Seidman, Rappaport, Berck, Rapp, Rhodes & Herring, 1977), college students (Brown, 1974) and a

range of others. Nonprofessional helpers were housewives, college students, clergy, senior citizens, psychiatric aides and a variety of other groups. Although enthusiasm for nonprofessional programs ran high and the number of programs increased rapidly (Report of the Joint Commission on the Mental Health of Children, 1969), conclusions about paraprofessional effectiveness were often based on programs in which numerous variables, such as the content, format and amount of training, supervision and intervention were confounded. As well, the evidence that was obtained was usually of an indirect, subjective nature and not drawn from rigorous statistical analyses and research designs (Zimpfer, 1974).

Originally the nonprofessional movement gained its impetus from some very real needs and pressing concerns. Although the numerous questions about the effectiveness of nonprofessionals were for the most part unanswered, the original rationales for the implementation of paraprofessional programs seemed convincing enough to keep the movement going strong. First, the use of nonprofessionals was a result of the increasing demand for mental health services and a shortage of professional workers. Albee (1959) was especially influential in focusing upon this issue and sensitizing mental health workers to the need for generating new sources of personpower and new delivery systems of mental health care. Since it was clear even at that time that there could never be enough professionals to meet the ever growing demand, the use of paraprofessional personnel was considered as a potential alternative. In fact, nonprofessionals

were thought to be the key to providing more complete mental health coverage to the entire population (Gruver, 1971). It was hoped that the use of nonprofessionals would increase mental health personpower not only because of their participation in paraprofessional programs but also because of their heightened interest in human services which might lead to their later involvement in professional training and careers (Durlak, 1971).

Second, nonprofessionals were thought to bring a number of unique characteristics to the human service endeavor. Such characteristics as enthusiasm, desire for involvement, refreshing naivete, new points of view, role flexibility, etc. (e.g., Korchin, 1976; Poser, 1966; Rappaport et al., 1971), were all seen as unique contributions. The perceived lower status of paraprofessionals made them more acceptable to the clients they worked with (Rioch, 1966). In addition the professional "reach" of the human service fields could be expanded to populations that professionals did not generally choose to work with--e.g., lower class patients, delinquents, chronic institutionalized inpatients (Durlak, 1971; Gruver, 1971). Nonprofessionals were said to bring a new style of service delivery, more far reaching in its impact (Riessman, 1970). As a result, professionals could move out of traditional roles and away from the use of questionable forms of psychological interventions. Professionals were able to expand their roles and influence by training, supervising and consulting with paraprofessionals. These factors made nonprofessionals essential as the community mental health movement expanded and the need for comprehensive coverage was stressed.

Third, the use of paraprofessionals was justified on the basis of the helper therapy principle (Riessman, 1969), which states that those who help also receive benefits from their participation. Thus, the use of nonprofessionals as therapeutic change agents was seen as a potential means of improving the mental health of the helpers themselves. Overall, it is obvious that the current use of nonprofessionals is firmly based on a number of important theoretical, conceptual and practical issues for the mental health system.

As suggested earlier, the great number of paraprofessionals involved in projects has been based more on enthusiasm and "evangelistic fervor" rather than on critical research scrutiny (Cowen, 1973). Yet, there are a number, albeit limited, of research investigations that must be considered before any conclusions can be drawn about the present state of affairs in this area.

The most frequent research question asked has been, does this approach work? In a review of paraprofessional programs, Karlsruher (1974) noted that the question of effectiveness had been answered by the utilization of a variety of outcome measures. For the client, effectiveness was frequently measured by pre-post change on personality, behavioral, perceptual and motor coordination measures taken by the individual client or on ratings completed by the client or another person--e.g., nurse, teacher--having contact with him/her. In terms of the helper, change was measured by examining the impact of program participation on the helper's attitudes about himself/herself and other dimensions, on personality measures, on

questionnaires or on the development of some targeted behavior in the helper's repertoire (Gruver, 1971). Due to the prevalent use of single outcome variables in and the limited scope of the studies reviewed by both Karlsruher and Gruver, it was impossible to determine whether there were any differences in the magnitude or type of psychotherapeutic change in the client as a result of personal characteristics of the helper, or vice versa.

As a result of the reviews by Carkhuff (1969a, b), Durlak (1971), Gruver (1971) and Karlsruher (1974) and the research of Brown (1974), Poser (1966), and Rappaport et al. (1971), conclusions can be drawn about the effectiveness of nonprofessional programs. First, in terms of the client population these findings have indicated that nonprofessionals, in a number of instances, have been found to be more effective than experienced professionals and have been able to function very efficiently in virtually any role and setting. Although the conclusion has been that paraprofessionals can and often do contribute meaningfully to the improved functioning of their clients, in reality the findings (except for inpatient hospitalized adults--which are well established [Karlsruher, 1974]) are still tentative. As well, a number of major outcome studies have had a lack of significant results (Durlak, 1971). More specifically, issues about the various components of a particular approach--including the impact of the content and amount of training and supervision, as well as the intervention strategy selected, on the outcome--have not been raised.

Second, it has often been found that the helping experience has had very positive effects on the helper. As summarized by Durlak (1971), the process of being genuinely helpful seemed to have several personal and social benefits for the person functioning in the helper role. For example, self-image improved (Holzberg, Gewirtz & Ebner, 1964); relationships with friends improved (Goodman, 1972); attitude change took place in terms of being more positive and accepting of target populations and less accepting of various institutions (Cowen, Zax & Laird, 1966; Holzberg & Gewirtz, 1963). Yet, even within this supposedly clear cut area there are some unresolved issues. Researchers studying attitude change as a process variable in nonprofessional personnel discovered that not only did these individuals become pessimistic about current treatment programs but some also became disillusioned about their own abilities to help others (Kulik, Martin & Scheiber, 1969). While the shift in attitude seems realistic in most programs, it may lead to defeatism and other problems within the program. In addition, Conter, Seidman, Rappaport, Kniskern and Desaulniers (1977) found that commitment to the program that one was involved in was important in keeping volunteers interested, motivated and involved. It was noted that volunteers working out of a volunteer agency were much less satisfied with the program, experience, training, etc., than those who were involved as part of a university course. Since commitment, satisfaction, enthusiasm and other such factors were assumed to be key variables in the nonprofessional helping process (Durlak, 1971) one wonders how such things as varying levels

of motivation and commitment on the part of the helper might influence the outcome of the target population. Unfortunately, as noted above, outcome studies have been primarily limited in scope and monolithic in nature, so such possibilities as the interaction of helper and helpee variables have not typically been considered as part of the research design. Thus, conclusions about the success or failure of the helping process have been very general and not very helpful in determining what the outcome was a function of, or how to more effectively design future programs.

Overall, the general pattern of evaluations for nonprofessional programs has been that individuals who have carried out helping roles have performed very well and have increased their own sense of self-worth when doing so (Kelly, Snowden & Munoz, 1977). Yet, as has been indicated, there are so many issues that remain unanswered--e.g., what are the most effective means of selecting and training nonprofessionals; with what kinds of clients are nonprofessionals most successful--that the question of general effectiveness seems too broad and useless. It was stated that questions concerning the effectiveness of nonprofessionals can have no simple yes or no answers (Rappaport, 1977). Furthermore, Goodman (1972) suggested that classical designs which test grand effects of supposedly uniform treatment with actually diverse populations and processes were not only doomed to failure but would fill the literature with conflicting evidence. Therefore, it seems crucial to design research so that the variables that influence the final results can be examined. It was

suggested that the most useful question in trying to identify critical variables in paraprofessional research is who works best with whom using what techniques and according to what criteria (e.g., Rappaport, 1977). This question was already found to be the most effective one in psychotherapy outcome research (Kiesler, 1971; Paul, 1969). This question has numerous implications for the design and implementation of nonprofessional research. It implies for example, that different types, amounts and formats of training, supervision and intervention should be compared, that various helper and helpee groups might be affected differently, that multimethod-multitrait measures should be taken, that process and outcome variables should be examined within the same study, etc. Until this major question has been dealt with in systematic research projects, Rappaport, Goddman and others have pointed out that the promises made by the nonprofessional movement will not have been fulfilled.

Since the question of who works best with whom using what techniques and what criteria is enormous in scope it seems necessary to break it down into more manageable pieces in order to commence a research project. However, it remains important to keep the overall question in mind. As has been indicated above, one important aspect of the general research question, which is typically overlooked during the nonprofessional program and thought to have been crucial in retrospect, is that of training. Generally what is meant by training includes not only the specific training component but also the supervision given and the intervention to be implemented.

Unfortunately, these variables are often confounded, so that the differential influence of each set of factors cannot be determined. In the forthcoming review, while some attention will be given to nonprofessional research in general, the focus will be upon those studies which have evaluated and compared different training, supervision and intervention strategies, as well as the specific issues raised by this research.

Although it was suggested that an understanding of training techniques could provide valuable insights into the manner in which nonprofessionals could be taught to perform with optimum effectiveness (e.g., Sobey, 1970), few researchers attempted to deal with the issue of training (Durlak, 1971; Laskow, 1974). The evidential base for most training programs utilized seemed to be descriptive testimonials (Goldstein, 1973). In many instances the training segment of nonprofessional programs was neglected because the agency involved could not count it as a service related activity and the amount of service rendered was the basis for their funding (Grosser, Henry & Kelly, 1969). In other instances administrators were so eager to get a program implemented that they hastily threw together the training and supervision components and they put little thought into the desired intervention. The type of training, supervision and intervention used seemed to depend on a number of factors--such as the conceptual orientation of the trainers, the job activities anticipated, the problems and life circumstances of those being helped (Durlak, 1971; Rappaport et al., 1971) as well as the time and money allotted

to the training/supervision period, rather than on systematic research findings. Furthermore, studies that did discuss and try out a particular training/supervision/intervention method were generally not comparable to other training studies, since the helpers, targets, training period and a host of other variables were not similar. As Laskow (1974), Durlak (1971), Sobey (1970) and others indicated, there appears to be a need to compare and contrast different training/supervision/intervention strategies used in nonprofessional programs and to closely examine the various components--e.g., amount, content, format of training and supervision, intervention approach--that make up the entire training perspective. It was the intent of the study below to experimentally examine and vary the training/supervision/intervention aspects of a nonprofessional program, to see what was taught and how and if this was actually implemented in the helping relationship, in as systematic a manner as possible.

In this chapter a review of research relevant to a training/supervision/intervention study will be presented. Next, the general issues for training, supervision and intervention will be examined in more detail. Then, the utilization of a target group and a helper group for which training/supervision/intervention comparisons would be appropriate will be detailed. Finally, the types of training/supervision/intervention strategies actually chosen for comparison will be examined.

Review

This review of nonprofessional programs which had training, supervision or intervention comparisons as part of their original research designs was compiled after consulting the major reviews of paraprofessional studies (e.g., Durlak, 1971; Gruver, 1971; Karlsruher, 1974) and the works referenced by them. While the original intent of the reviewer was to examine only those studies which both compared training procedures and related them to many program variables, including client outcome, not much objective research has been done which both evaluates the efficacy of specific training methods and related these approaches to such factors as intervention goals, problem populations and program settings (Durlak, 1971). Although it has been pointed out (e.g., Karlsruher, 1974) that the value of training and supervision of nonprofessionals could be determined only by comparing the relative efficacy of these factors, to date few studies have even attempted these comparisons. Thus, this review will include a sampling of analogue studies which compared the efficacy of: (a) different training procedures in teaching therapeutic skills to helpers, (b) extended analogues which compared the efficacy of different techniques both in teaching specific skills to helpers and in increasing desired and decreasing undesired behavior in targets, and (c) in vivo studies which related training to client and/or helper outcome. Particular emphasis will be given to the latter studies.

Analogue Studies

There have been a number of studies over the years which have used analogue and other research procedures to compare the effectiveness of specific training methods in teaching therapeutic skills to nonprofessionals and to examine the role of various theoretical constructs in the training process. Goldstein and his associates (Goldstein, 1973) examined the effectiveness of his Structured Learning model with nonprofessionals in a number of analogue studies. Overall, these techniques were shown to be effective in increasing the therapeutic skills in a range of nonprofessionals (Rappaport, 1977). The primary focus of the research conducted by Goldstein and his associates was on the paraprofessional contribution to the therapeutic relationship--e.g., in terms of attraction, empathy, warmth and self-disclosure. A study conducted by Perry (1970) is an example of the type of comparisons made. Using 66 clergymen as helpers, the study examined the independent and interactive effects of modeling and instruction as skill training procedures in developing empathy. A 2 x 3 factorial design, instruction (absent, present) and empathy (high, low and no model) was used. Training per se took place in one session. The helpers heard instructions and listened to a modeling tape of supposed therapeutic interviews, at which time they had to write down, in 12 different instances, what they would have said if they had been the therapist. The helpers also conducted short interviews with pseudoclients. Tapes and interviews were rated for three criterion variables--empathy, respect and genuineness. Overall,

modeling procedures clearly were effective as an initial training approach although no transfer effect was found. The lack of a transfer effect prompted these investigators to try to research and build in training methods to increase the carry over of adequate skill enactment from the training setting to application setting. As is clear from the above description, the focus of this research was not on the client and changing his/her behavior, but on changing the interpersonal skills of the nonprofessional helper. The question of generalization to the actual intervention implemented by the helper was unanswered.

In a somewhat similar vein, Rappaport, Gross and Lepper (1973) investigated the effectiveness of sensitivity training, modeling and simple instructions in increasing the social skills of college student volunteers. Sixty college students were randomly assigned to one of three training conditions--sensitivity training, modeling or control. The sensitivity training took place for fourteen hours over seven weeks in small discussion groups. Modeling involved watching a 20 minute videotape of actors being self-disclosing and understanding. Then members from each group participated in a situation (GAIT, Goodman, 1972) in which they were to be both self-disclosing and understanding. Half of the participants were given general instructions about what they were to do in the situation; half were given specific instructions. Ratings were taken of each of their performances. Under general instructions the modeling group presented significantly more personal and less impersonal discussion

than the sensitivity training groups which was significantly different than the no training group. Under specific instructions all groups were essentially equal. Conclusions were drawn about the relative efficacy of these training methods for helpers. No mention was made of particular client populations or testing for generalization to a real life situation.

Carkhuff (1969a, b) and Truax and Carkhuff (1967) described in depth their integrated didactic and experiential program used in the clinical training of professional and nonprofessional therapeutic workers. As well, the practical relevance of this program or a modified version of it for a variety of nonprofessional workers such as nurses, aides, school counselors was indicated (Durlak, 1971). In this program helpers were trained to use research training scales measuring basic therapeutic conditions of empathy, nonpossessive warmth and genuineness and to recognize, discriminate and communicate levels of the effective therapeutic conditions of empathy, warmth and genuineness. The training program required less than 100 hours to complete. Supervision was considered to be a crucial part of training and was itself viewed as a therapeutic process. Helpers were often given practical experience through a large number of single interviews with patients.

In research examining the effectiveness of the Carkhuff and Truax training procedures, Berenson, Carkhuff and Myrus (1966) compared three groups, each n=12, of perspective dormitory counselors. These counselors were randomly assigned to a training group which

used the training program with all of its components; a training-control group which met for the same number of hours as the training group but did not use the research scales or go through the group therapy/supervision experience; or to a no-treatment control group. Outcome was measured by rating tapes of the one session practice interviews and by having the client, dormitory roommate and counselor himself/herself fill out an inventory of the counselor's functioning on the interpersonal dimensions of empathy, genuineness and warmth. Those students in the training group showed more positive change than the training-controls, which showed more than the controls. Obviously this study, similar to those of Goldstein and Rappaport, Gross and Lepper, was aimed at understanding how best to teach and enhance skills in the helper. No effort was made to look at the differential impact on the client.

Extended Analogue Studies

Several studies were conducted in order to examine the efficacy of different training procedures in teaching the techniques of non-directive play therapy to nonprofessionals. The impact on both the helper and the client, in terms of increased interpersonal skills, were measured in playroom settings. For example, Stover and Guerney (1967) assigned two groups of mothers to a control condition receiving no treatment and two groups to an experimental condition where they received ten 1½-hour weekly training sessions. Training involved the development of empathy skills and understanding for the child in the mother. The format of training included didactic sessions,

observing of therapists modeling the skills, and direct experience (with the mothers' own children) plus immediate feedback. At post-test, trained mothers showed a significant increase in the percentage of total reflective statements, controls had no increase. As well, children in both of the experimental groups had a significant increase in the amount of expressive behavior as compared to control children. Stover and Guerney concluded that the training phase of filial therapy was effective in teaching parents to provide the necessary climate for improving interpersonal communication between mother and child. Using the same principles of client-centered play therapy, Linden and Stollak (1969) compared the play therapy behavior of college students in three conditions. The first group received a ten week training program in which skills were taught using the filial therapy model (see above). The second, a quasi-training group, met for the same amount of time but got neither specific instruction in play therapy nor immediate feedback on their actual play behavior with children. The third group was a typical control receiving no training. The traditional training group showed significantly more reflective behavior then either of the other two conditions. Members of this group also gave less unsolicited help, information or direction. The quasi-training group was significantly superior to the control group on only one of the nineteen behavior measures. Explanations for the lack of improvement in the quasi-training group included the possibility that the training sessions were too short and/or that the skills desired in the intervention needed to be taught directly. In

both studies above it is clear that the focus was on improving the skills and changing the behavior of the helpers so that the skills and behaviors of the children would be improved. The traditional training/supervision model was clearly the most effective in producing the desired change. Outcome measures taken on both the helper and the client were in terms of client-facilitative behavior. No measures were taken on how the helper benefited or felt about the experience. The generalization of these skills to in vivo settings was not considered as part of the above research.

In Vivo Studies Using Client and/or Helper Outcome Criteria

Unlike the above studies, which seemed to take a global view of the skills needed by helpers and behaviors desired in target groups, a number of investigators have been more interested in taking a number of factors--e.g., target group, program setting, role of nonprofessional--into account when determining or assessing the type of training/supervision/intervention to use for particular client groups. These efforts may have stemmed from the belief (e.g., Rappaport et al., 1971) that program outcomes themselves were influenced by a number of variables.

Karlsruher (1974) noted in this review of nonprofessional research that Goodman's (1972) study was the only one which systematically varied the training of nonprofessional therapists and measured change on the individuals who were treated by them. Since then, other studies have appeared that varied certain elements of the

training/supervision/intervention process and examined effects on the target or helper (Conter et al., 1977; Davidson et al., 1977; Fo & O'Donnell, 1974). These will be discussed below.

Goodman (1972) used paid college students as helpers in his study of the effectiveness of companionship therapy with disturbed fifth and sixth grade boys. He assigned half of the students, n = 45, to the group receiving approximately 27 weekly training sessions aimed at providing interpersonal-relations education. He assigned half, n = 42, to the condition receiving little training. The groups were matched on variables such as sex, socio-economic status, interpersonal traits and academic major. Although one group had 27 weekly sessions while the other did not, the training comparison made was one of more versus less training rather than training versus no training. In addition, it appears that supervision and intervention variables were confounded with training. Both groups took a six lesson programmed instruction course on two-person interactions and both went through a four hour orientation meeting. It was easy for members of both groups to get personal consultation and over half of the students in each group utilized this service at least once. As well, 80% of all students were contacted by the staff at least once because of tardy weekly reports or because the staff had worries about a particular case. It is not clear what was discussed in these supervision or staff meetings. Data concerning the frequency and extent of phone calls to the staff for individual consultation was not provided. All volunteers were expected to meet with their

youths at least two times a week, with a minimum of one hour per visit. Thus, while a portion of the training segment was somewhat different, issues about the accessibility, amount and content of supervision, the monitoring of the interventions implemented by the students, etc., are extremely unclear. It was found that students who received weekly training were rated by their assigned youths as being more empathic and self-disclosing. Students with weekly training also reported more interest in their own interpersonal behaviors and in their fields of study but they did less well in their academic courses. The clients of those getting more training were rated by their own parents as being more assertive than the children of those who received little training. Overall Goodman felt that the findings contrasting training on outcome of either student or child were very minor. In terms of the type of intervention, no meaningful relation was found between youth outcome and kinds of activities pursued. Visit length and frequency were thought to be variables worthy of further study, for frequent and shorter visits were counterindicative of therapeutic gain. In general the program had modest positive effects when treatment groups as a whole were compared to controls (Korchin, 1976).

Fo and O'Donnell (1974) used adult indigeneous nonprofessionals to act as buddies with 42 male and female youths age 11-17 who were referred for behavior and academic problems. Training time consisted of six initial three hour weekly sessions followed by biweekly sessions throughout the course of the involvement. Thus ongoing training and

and supervision were provided. Each helper was trained in three different methods--relationship skills, social approval and social and material reinforcement. In the first condition, nonprofessionals were taught to be always warm and positive to their youth and to provide a noncontingent allowance. In the second the helpers were trained to be warm and positive, but contingent on the performance of desired behavior, and to provide allowance noncontingently. In the third condition they were taught to provide social and monetary reinforcement on a contingent basis. Each adult was assigned three youths, often one from each condition. Each condition was implemented for six weeks, then all relationships were switched to social and material reinforcement. In terms of the different componenets then, all buddies received the same training and supervision, but the actual intervention used varied with the condition of the particular youth assigned to them. Buddies were required to meet at least once a week with each of their youths. There was more improvement, as measured by a frequency count of the targeted behavior--most often school attendance--for youths under the contingency condition. No assessment of the effects of the experience on the nonprofessional was undertaken. As well, it is very unclear how the differential intervention was carried out, particularly when one considers the fact that these buddies sometimes met with all of their three youths together. The authors themselves noted that the success of training and intervention was assessed by the frequency count of the youth's behavior, a twice removed index of the success of training and

intervention. Such indices were felt to be too indirect to serve as specific and valid data for evaluating the actual impact of training and consultation on the change agent's intervention.

Davidson et al. (1977) used college students to work one to one with 24 male and female juveniles, mean age of 14.5, who were referred by police as an alternative to being petitioned at court. College students were assigned to either a behavioral contracting training, supervision and intervention mode or to a child advocacy training, supervision and intervention mode. This study varied the type of training and supervision given in combination with the type of intervention to be implemented with the assigned youth. The format of training and supervision--two hours weekly throughout the involvement, of which the first six weeks were the official training segment--and the amount of time to be spent with the youth--eight to ten hours weekly--were held constant. A series of process scales were utilized to measure the intervention strategy. As was expected, the data indicated that the helpers did in fact do different things in each of the treatment conditions. It was found that neither method of training was significantly different in its influence on the outcome criteria (further police and court contact and school records) for the youth, although youths in both groups did significantly better than a control group of juveniles. It was felt that the structured format of the training and supervision component was essential to the success of the program. Amount of time spent with

the youth was not found to correlate with youth outcome. Outcome data on changes in the helpers have not yet been analyzed.

Conter et al. (1977) compared the effects on college students of being in one of two volunteer programs. The first program was run through a volunteer agency and volunteers were assigned to work with youths referred from the county mental health center or probation department. Training consisted of three orientation meetings and supervision that was at first weekly, then biweekly, then eliminated. The second program was the project described by Davidson et al. above. Students participated as part of a course and received weekly training/ supervision. Although those in the class felt their targets improved more than those from the volunteer agency, no direct measures were taken on youth outcome. In terms of helper outcome, not only did students in the first program drop out at a significantly higher rate than students in the second, but those who remained in rated their experience as being less beneficial and less positive than those involved in the course. Differences in training and supervision, as well as differences in commitment, seemed to have had a great impact on the experience for the helper. Rappaport (1977) suggested that this study might indicate the need for systematic and carefully planned supervision to which volunteers were committed before beginning the project. However, he also stated that more research needed to be conducted before a definitive answer could be given.

Summary

As can be observed from the above review, training comparisons have been performed with many different groups of helpers and targets and in many kinds of settings. Notwithstanding this diversity, a number of general conclusions about training, supervision and intervention approaches can be made. First, what has been meant by training, supervision and intervention often has differed from study to study. Second, the choice and implementation of specific training, supervision and intervention strategies have had implications for and measurable impact on both the helper and the target groups. Third, the systematic and careful planning of both training and supervision seemed to be essential to the intervention that was implemented and to the success of the program. This implies that the training and supervision components should include the teaching of skills that will carry over to the application setting. Fourth, appropriate process and outcome measures have rarely been utilized to gain information about the intervention that was actually implemented by the helper. Fifth, the variables relating to the training, supervision and intervention components are numerous--e.g., content of training/supervision/intervention, amount of training and supervision and type of intervention implemented. These variables have rarely been clearly defined and not confounded within research designs.

Critical Issues

In both the review of nonprofessional training studies and the summary above, a number of variables have been identified as being

part of the training/supervision/intervention process. Those that have been considered particularly important but have often been ignored, undifferentiated and confounded in previous research include variables relating to content of training/supervision/intervention, to amount of training/supervision and to the monitoring of the intervention. It is important to examine these variables in more depth, in order to gain a better understanding of the general issues involved for nonprofessional program development and implementation.

Content of Training/Supervision/Intervention

Once a program administrator decides to provide a planned training/supervision/intervention segment in a nonprofessional program, it becomes necessary to determine how to provide it and what kind to provide. This is based on a number of pragmatic issues as well as decisions regarding theoretical models of human behavior, value systems, roles that people assume and therapeutic models. The literature on the format or structure of training has led to some similar conclusions: that learning by doing is essential (Zax & Specter, 1974); that immediate feedback is important in shaping appropriate forms of helping behavior (Durlak, 1971); that didactic-theoretical approaches to training are ineffective by themselves in improving mental health skills (Carkhuff, 1969a; Durlak, 1971). Linden (1968) felt that combining an experiential process with concrete feedback and a clear didactic communication of what was to be learned would utilize the most effective parts of both the didactic and the

experiential approaches. In fact, a combination of didactic and supervised on the job experience was found to be one of the most common training models in nonprofessional programs (Sobey, 1970).

Deciding on what content of training/supervision/intervention to provide seems a less clear cut task. Oftentimes what has been taught and expected of nonprofessionals has depended on a number of arbitrary factors, such as the time and money available and the orientation of the trainers. It has been argued that gaining an understanding of the tasks that need to be performed should be more important than arbitrary factors when deciding how to train helpers (Arnhoff, Jenkins & Speisman, 1969; Rappaport, 1977). Durlak (1971) also felt that the formulation and specification of a working therapeutic role was fundamental to the efficient implementation of a new nonprofessional program. Regardless of role, Rappaport et al. (1973) stated that an effective therapeutic or change agent <u>always</u> needed at least two distinct kinds of competence, each one necessary but not alone sufficient: social skills and technical skills. Korchin (1976) concluded after reviewing a number of nonprofessional programs that, in training these workers, consideration had been given to both maximizing human-relation skills <u>and</u> to teaching psychological techniques of particular relevance to the specific role. However, many questions about type of content remain unanswered, for it was not clear from the above review how such decisions as how much of each type of skill--social and technical--to provide and in what order to provide these skills were made. As well, it was not clear how

these skills were related to the role specifications. In general, the content of training/supervision/intervention strategies seems to have been based on a number of assumptions about what was needed and what works best.

The most frequent kind of content that was used in training nonprofessionals--based on the theoretical constructs outlined by Rogers (1959) about the necessary and sufficient conditions for effective therapeutic relationships--focused on developing interpersonal skills (Carkhuff, 1969a). Many believed that this was an essential first step in the helping process (Danish & Brock, 1974; Danish & D'Augelli, 1976; Danish & Hauer, 1973; Truax & Carkhuff, 1967). Danish and Brock (1974) for example, stated that despite variability in roles, training experience and functions, training programs must first teach a basic set of relationship building skills. Danish and Hauer (1973) and Danish and D'Augelli (1976) described several programs that they felt were the best packaged interpersonal skills available--Carkhuff (1969a, b); Danish and Hauer (1973); Goldstein (1973); Ivey (1971); and Kagan (1972). Unfortunately, no attempt has been made to empirically compare these training programs (Danish & Brock, 1974). Typically the research that was conducted compared helpers trained under one of these approaches to others not trained or looked at client outcomes. While each program as a whole seemed to work, at least as reported subjectively and in a few objective studies, what components of the program were most effective and should have been maximized and what parts were detrimental and

should have been deleted were not identifiable from the research design (Goldstein, 1973).

Many nonprofessional programs have not provided interpersonal skills training at all, but rather have detailed specific behavioral techniques and procedures for the nonprofessional to use in dealing with the target group. For example, Tharp and Wetzel (1969) used nonprofessionals to work as behavior analysts with 89 delinquent children referred from a number of sources. The analysts taught the mediators, significant others in the child's environment, to use reinforcement techniques with the children. Davison (1966) trained four undergraduates to be social reinforcers for children who were autistic. These autistic children greatly increased their percentage of obeyed commands by the end of the program. Davison concluded that bright, motivated students could be taught in a short time to implement a behavior control program. Although it was easy to train nonprofessionals in behavioral methods, it was pointed out that the training and functioning of paraprofessionals in behavior modification programs were greatly restricted by the focus on specific limited changes (Durlak, 1971).

Obviously, decisions about what to teach nonprofessionals should be made while considering the roles, behaviors, etc. desired for the helpers when they are with the target groups. In some cases it might be decided that the particular skills for the intervention are already within the helper's repertoire and therefore will not need to be taught as extensively. The issue of how much training/

supervision to provide for a particular approach will be discussed more fully in the next section. More research is needed which compares the impact of different contents of training within the same study, using identical helper and target groups. Until such research is conducted in a systematic fashion, conclusions about the best and/or the most efficient content to use for a particular program are not possible.

Amount of Training/Supervision

Often when conclusions were made about the success or failure of a particular content of training/supervision/intervention, issues about the appropriateness of the length of time devoted to the training/supervision of the particular content were overlooked or minimized (e.g., Linden & Stollak, 1969). Yet, it was stated that the question of too much versus too little training is a critical one for the nonprofessional (Report of the Joint Commission, 1969).

It became clear after examining the different amounts of training used in the nonprofessional programs cited in the training review above, that "training" per se had different meanings for different people. For some training was considered to be only the pre-service portion (e.g., Goodman, 1972), for others it involved training/supervision (e.g., Fo & O'Donnell, 1974) and for still others it included training/supervision/intervention (e.g., Davidson, et al., 1977). Thus, in order to make conclusions about training, it becomes important to know what was actually meant.

Durlak (1971), after discussing a number of programs which used a variety of training techniques and time periods, pointed out that in every case professional supervision or consultation was provided or available. Supervision has usually been a regular part of most programs, although there have been some that provide only occasional supervision and some that provide supervision only when an emergency arises (Sobey, 1970). A substantial number of respondents to Sobey's (1970) survey indicated that they wanted a planned continuous process of training and supervision. As well, they indicated a desire for planning and conceiving of training and supervision as one entity rather than as two separate, unrelated units.

One of the key issues involved when deciding how much training/supervision to provide has centered around the very question of what has made nonprofessionals effective helpers. One of the basic relationales for the use of nonprofessionals was that they brought a variety of unique characteristics to the helping relationship. Working from this assumption, there are some who have believed that giving these workers training would only wash out their uniqueness, thereby making them less effective (Durlak, 1971; Korchin, 1976). Korchin (1976) felt that those who argued in this manner believed that training a nonprofessional would be like "sending Grandma Moses to art school" (p. 529). Studies like the one done by Poser (1966) demonstrated that undergraduates with no training at all could promote change in the psychological functioning of chronic schizophrenic

patients. Hetherington and Rappaport (1967) decided to eliminate the formal training portion of their program because they felt it detracted from the workers' effectiveness.

On the other hand, there have been some investigators (e.g., Carkhuff, 1969a, b; Goldstein, 1973; Linden & Stollak, 1969) who found that nonprofessionals did not necessarily function at a particularly effective level of therapeutic behavior when they began as helpers. Vesprani (1969) even found that volunteers not given training decreased in the amount of client centered facilitative functioning over time.

Durlak (1971) suggested that the correct line of thought about the "natural" skills of nonprofessionals might lie somewhere between the two positions outlined above and actually incorporate both. He felt that one person might be more naturally gifted than another person. Appropriate training could help bring about acceptable levels of helping skills in both individuals.

If indeed there are individuals who are more gifted than others, there have been some who have suggested that nonprofessionals should choose only the most skilled, potentially most effective individuals. Then either no training would be given or if additional skills were needed the training time could be used in this way (Rappaport et al., 1973). On the other hand, many program designers acknowledged that they had little basis on which to establish rigid selection procedures and that they either let the participants self select or used some kind of gross screening procedure (Durlak, 1971).

Others, who had some preconceived ideas about what they were looking for, relied on intuition or personal predilection, for they found little research in this area (Danish & D'Augelli, 1976; Zax & Specter, 1974). Thus an alternate view was that, as Durlak suggested, all paraprofessionals could benefit from well formulated training which focused on specific types of helping skills. Such training was seen to hold much promise for preparing a large number of nonprofessionals for helping role (Danish & D'Augelli, 1976).

In addition to determining how much training/supervision time is needed to provide helpers with enough information and skill in a particular helping role, the program designer must determine how much time is needed for other functions. For example, there might be a certain amount of training/supervision needed to allay anxieties on the part of both the administrators and the volunteers and to provide social support networks for the volunteers. Zax and Specter (1974) speculated that at times administrators provided extensive training to deal with their own anxieties and doubts about placing nonprofessionals in human service settings. Sometimes training/supervision was utilized to allay the anxieties of trainees as much as to provide skills (Zax & Cowen, 1967). Yet, some (e.g., Riessman, 1969) argued that the pre-service period should be short so that anxieties would not be built up and workers would not become threatened by the anticipation of the job. Yet, whether long or short in length, it seems obvious that one important aspect of the training/supervision component is that it can help to establish social support systems

and to reduce anxieties of the trainees. However, there has not necessarily been an inverse relationship between training and supervision; that is, when less training was provided it did not mean that more supervision was required. For example, Goodman (1972) found that contrary to what was expected, those individuals who received less training contacted outside supervisors with equal frequency to those students who received more training. Obviously there are many factors to be considered when deciding how much training and supervision to provide, both for teaching information and skills and for generating social support. Unfortunately, there seems to be little systematic research to provide answers to the many questions raised in this area.

Monitoring the Intervention

In order to determine how different or similar varied treatment/supervision approaches are when actually implemented, it is important to examine the actual intervention or treatment method used by the helper. As suggested above (Perry, 1970), training has not always been found to transfer to the actual situation. Treatments or interventions are conglomerates of many things--modes of structure, relational qualities, etc.--all of which get combined as the approach used (Rappaport et al., 1971), which makes it impossible to effectively identify the crucial components. In a review of a large number of behavior modification programs using juvenile delinquents (Davidson & Seidman, 1974) it was found that while the various components of

the treatment manipulations were described, the operative processes were rarely monitored in a systematic fashion.

Nonprofessional programs have often left the helpers to their own resources. This implies that a wide variety of intervention strategies might have been implemented, some with only general commonalities with work done by other helpers in the same program. Thus, it seems important when examining research on nonprofessional programs to determine exactly what the worker has done and what has worked, so that valid interpretations can be made of the outcome data. As well, it is important to examine the impact of amount of the intervention--e.g., length and frequency of meetings--on outcome. Process analysis, by breaking down what is actually transpiring in the intervention into smaller units, will help to determine what has been done by the helper and what has been a more or less effective approach, particularly if interventions were actually different.

That the intervention performed should be an essential component of the training/supervision process is highlighted by a program reviewed by Lourie, Rioch and Schwartz (1967). Eight mature housewives were trained in a two year, half time intensive training program to be child development counselors. At eight month follow-up, although supervisors for these women found them to be useful and competent, the workers were dissatisfied because they were not doing what they had been trained to do. Durlak (1971) stressed the importance of tailoring training to fit the specific needs of community agencies and services, so that the intervention called for would be

part of the integrated training program. If the intervention that is desired or needed is different than what workers are trained to do or if the goals for the intervention are not realistically within the capabilities of the nonprofessional worker the training/supervision component might be overlooked. The worker might perform other functions that he/she feels more comfortable with. Thus, the end result might not reflect upon the amount and content of training/supervision given both at the beginning and throughout the program's duration. This again emphasizes the need for monitoring the actual intervention.

The differential impact of the type of training/supervision/intervention mode has been demonstrated in a study by Alden, Rappaport and Seidman (1975). It was found that the type of intervention used (tutoring versus companionship) affected outcome. Thus, as suggested above, it is not just the training and supervision components--e.g., how much to provide and what content to present--that must be considered when deciding how to design and develop the training sequence of a nonprofessional program. In addition, it must be determined how and if the training/supervision components will influence the type of intervention that is implemented by the nonprofessional worker with the targeted individual or group.

Rationale for Present Research

The present study examined the critical issues regarding training/supervision/intervention that were outlined above. This was done within the context of a large federally funded diversion project

for juvenile delinquents. In this study juvenile offenders composed the target group and college students composed the nonprofessional helper group. The rationale for the use of these particular groups in a study designed to compare training/supervision/intervention strategies will be discussed below.

Juvenile Delinquents

Juvenile delinquents, as a group, have received a great deal of attention during the last decade. This resulted from the large increase in the number of youths involved in criminal activities and the growing recognition that the traditional methods of treating these youngsters were inadequate.

The inadequacies of the current methods have been seen as the result of a number of factors in the juvenile justice system. The juvenile justice system has come under attack for failing to provide sound, effective or humane treatment and for overlooking the constitutional rights of youthful offenders; for providing correctional institutions for juveniles that have been generally ineffective and expensive; and for viewing the problem of delinquency only in terms of the youths who were apprehended and convicted (Seidman, Rappaport, Davidson & Linney, in press). In addition, traditional case work methods and psychotherapeutic techniques have generally been found to be ineffective (Grey & Dermody, 1972; Levitt, 1971).

A second issue has been the unavailability of professional level therapists. This has been due to both the overall shortage of

human service professionals and the great reluctance of professionals to work with juvenile delinquents. Delinquents have been viewed as a particularly frustrating target population. As a result of these criticisms and inadequacies, there has been a growing search for alternative sources of personpower and intervention (Gold, 1974).

Nonprofessionals have been seen as providing a means of meeting the needs of the juvenile justice system. As was cited above, nonprofessionals have provided a feasible, economic way of expanding programs in mental health fields and importantly, they have had success with a number of difficult groups of clients. Nonprofessionals have been found to be especially useful in the courts as a whole and in alternative programming, both in pre-adjudicative prevention and post-adjudicative correction. Although slow starting, programs using nonprofessionals in corrections have proliferated recently (Scheier & Goter, 1971). It was estimated that well over a thousand juvenile courts in this country had formal volunteer programs and it was noted that similar efforts had begun in Europe (Kaufman, 1973).

Although nonprofessional programs are widespread, the effectiveness of nonprofessional workers in the juvenile justice system remains an open question (Peters, 1973; Shelley, 1971; Scioli & Cook, 1976). As Shelley (1971) concluded after surveying over 50 evaluations of volunteers in corrections programs:

> There is still quite a meager supply [of research] in view of the fact that the modern volunteer movement is now in the second decade. One can only surmise that the practitioners

> have been so busy inaugurating, expanding and experimenting with volunteer programs that they have not had the time to sit down and plan how to evaluate what was going on (p. 1).

Thus, there seems to be a real need to systematically examine this area of nonprofessional involvement. Although research in this area has typically centered on the delinquent himself/herself and not on the helper, it seems crucial--in trying to gain an understanding of program outcome and changes in the youth's behavior--to get as broad and complete an understanding of the intervention as possible. This means looking at variables connected with the youth, the helper and the intervention used and at numerous interaction effects.

In addition to the use of nonprofessionals, various alternatives to the traditional juvenile justice system have been recommended and in many cases implemented. One important alternative for treating delinquent youths has been a move from institutionalization to community based treatment. This was due not only to the ineffectiveness, expense and inappropriate focus of institutionalization (Empey, 1967) but also to a shift toward community based services in the mental health fields as a whole (e.g., Cowen, Gardner & Zax, 1967). In a recent reveiw (Wright & Dixon, 1977) over 6000 different community based intervention and prevention programs were identified. Unfortunately, it was also concluded that the majority of these programs lacked systematic empirical evidence of their effectiveness.

Another major suggestion for changing the juvenile justice system has been to divert juvenile offenders away from the court. It

has been argued that the youth's contact with the court was malignant, producing more harm than benefit. Over the years diversion has become a major influence in the formulation of juvenile justice programs (Klein & Carter, 1976). Yet, the results of these programs have been mixed and there has been much controversy in this area. There is a need to systematically examine the effects of such programs (Davidson et al., 1977).

In summary, juvenile delinquency has been and continues to be a major concern in this country. The fact that traditional approaches have not been useful or effective and that there has been a shortage of professional workers have led to a search for alternative methods (Gold, 1974). Paraprofessional workers have been seen as promising sources of personpower and treatment innovations and in fact, many nonprofessional programs have been implemented. Many of these programs have utilized such alternative approaches as community based treatment and diversion. On the whole delinquency research has been limited to outcome and more specifically to measures of recidivism. Most delinquency programs have described parameters of the intervention used in global, superficial terms. For example, such factors as length and frequency of contact, duration of relationship and orientation of intervention have either not been described or if described, data has not been presented (Goodman, 1972). Due to the confusion and concern in the area of delinquency there appears to be a pressing need for research projects which will examine a multitude of process and outcome issues in a systematic fashion.

College Students

College students have frequently been used as nonprofessionals (Sobey, 1970) and seemed to have had success with a variety of target populations. The particular appeal of college students as helpers has been that they are plentiful, inexpensive and desiring involvement and relevancy in their education (Gruver, 1971; Rappaport et al., 1971). As well they have been particularly available for university-based research.

The research discussed above on the helper therapy principle (Riessman, 1969) and on changes which take place within the helper group as a function of program participation have largely been conducted using college students as the nonprofessional workers. On the whole, participation by college students in these programs seemed to have positive developmental influences on their own personalities (Gruver, 1971). It may well be that college students are even more open to change than other groups of helpers, for their interests, attitudes, goals, careers, etc. have not yet been firmly formalized.

The debate about what kind and how much training/supervision/intervention to provide nonprofessionals is as much an issue for college student nonprofessionals as with other helper groups. For example, some (e.g., Rappaport et al., 1973) have argued that college students as compared to other helper groups have even more enthusiasm, desire for involvement, etc., as well as a higher level of social skills. However, others (e.g., Linden & Stollak, 1969; Truax & Carkhuff, 1967) have stated that college students might be inadequate

in interpersonal skills when they begin their involvement in a program and therefore would need a planned training/supervision/intervention strategy. Thus, college students seem to be an especially useful group in which to break down outcome results and to look at potential interaction effects of helper variables and training/supervision/intervention variables with juvenile delinquents.

Choosing Training/Supervision/Intervention Strategies

Once a target population (juvenile delinquents) and a group of helpers (college students) have been chosen, it is important to systematically determine the type(s) of training/supervision/intervention strategy that seems most useful for meeting the needs and goals of the program and for allowing training/supervision/intervention comparisons to be made. First, any nonprofessional training/supervision/intervention sequence must have several general characteristics. For example, it should be inexpensive, as nonprofessional programs are generally not well funded. It should be simple to teach and carry out, for trainer/supervisors are limited in number and have many other responsibilities and helpers usually are not invested in performing intricate duties and responsibilities. It ought to be brief, in order to enhance helper and target interest and motivation and to ensure simplicity. Finally, it should be both practical, not abstract and theoretical, and specific, so nonprofessionals understand how to implement the intervention in the applied setting. Second, a nonprofessional program designed specifically for

delinquents should not rely on already established training and treatment methods for, as has been discussed above, they have been typically ineffective with this target population. Thus, innovative approaches or combinations of techniques will be essential to program success.

Recent reviews of behavior modification programs which used juvenile delinquents as target populations (Braukman & Fixsen, 1976; Davidson & Seidman, 1974) highlighted the lack of systematic research in this area. However, an overall pattern of positive results with these new behavioral techniques was indicated. A study conducted by Davidson et al. (1977), which compared child advocacy techniques to behavioral contracting, was one of the rare attempts to conduct systematic research on the use of different techniques with youthful offenders. As discussed above, both of the approaches had very positive results when compared to no-treatment controls. On the basis of the success of both approaches, it was decided to use a combination of both strategies for the first training/supervision/intervention (TSI) sequence in the current study.

The interpersonal and therapeutic skills building approaches advocated by Carkhuff (1969a, b), Egan (1975) and a host of others and the claims made for the usefulness of these methods for diverse helper and helpee groups were taken into consideration when determining a second strategy. The potential of companionship methods (e.g., Goodman, 1972) when used in the natural setting of the target was also recognized.

The arguments of those stressing the importance of "natural" skills of nonprofessionals and of a limited TSI structure were considered when devising the third and fourth approaches for this study. The importance of including attention placebo groups in research designs was also acknowledged in the use of these strategies.

It was decided that volunteers in all TSI sequences would work with their assigned youth for an eighteen week intervention period. Decisions to terminate at any specific point in time are arbitrary. In this project an eighteen week time period was selected because it makes the intervention period time-limited, thereby allowing a mutually visible time period in which to be goal oriented. Eighteen weeks also allows sufficient opportunity to both plan for and accomplish significant changes and it is short enough to avoid unwanted dependency.

Thus, after examining prominent theories and already established training methods for delinquent and nondelinquent populations it was decided to compare and contrast the impact of four different types of TSI within the context of a larger nonprofessional research project. The first type, Hi-Action, involved a combination of child advocacy and behavioral contracting techniques. The second, Hi-Relationship, was aimed at developing and enhancing relationship and problem solving skills of the youth and student. The third, Lo-Small, and the fourth, Lo-Large, were less structured, more limited training approaches which were comparable in some ways to the typical models

used by volunteer-in-court programs. They also permitted a systematic examination of possible attention placebo effects. A brief overview of the rationale for and application of each TSI model will be presented below.

Hi-Action. As discussed above, the Hi-Action approach was a conglomerate package consisting of two types of interventions--child advocacy and behavior contracting. The rationale for joining the two approaches was based partly on the experimental finding that there was no difference between the two in terms of youth outcome measures (Davidson et al., 1977). Furthermore, it was speculated that if nonprofessionals could choose to use either or both techniques, instead of being restricted to a specific one, their options would be expanded. In addition, the intervention could be individualized to meet the special needs of the assigned youth, stability of change could be better ensured by this individualization, and the role of the nonprofessional could be more innovative and less like that of a technician. The theoretical and applied basis for each of these two techniques is discussed below.

1. Behavioral Contracting. Deviant behavior was seen as a function of the entire system in which the individual was embedded (e.g., Alexander & Parsons, 1973). Thus, the proponents of behavior modification techniques recommended the rearrangement of environmental contingencies so that behavior patterns similar to nondelinquent groups would appear (Nietzel, Winett, MacDonald & Davidson,

1977). Although a variety of behavioral techniques have had positive results in a number of settings, research is limited and largely inadequate and much more needs to be done before definitive conclusions about effectiveness can be made (e.g., Davidson & Seidman, 1974).

The techniques of behavior contracting used in this study followed from Stuart's (1971) work in this area. He postulated that delinquency was the result of parents, teachers and/or peers of the youth reinforcing anti-social activities and failing to reinforce prosocial activities. He, as well as Alexander and Parsons (1973), demonstrated that there was a disproportionate number of negative interactions between the delinquent and his parents. The conclusion drawn from these studies was that the family, as well as other significant individuals in the youth's life, was crucial for bringing about change in the youth.

In determining how to bring about such change, Stuart made a number of assumptions about interpersonal relationships. First, it was assumed that the receipt of positive interactions in an interpersonal situation was a privilege and not an inherent right of an individual. Second, the assumption was that the norm of reciprocity or quid pro quo governed effective interpersonal relations. Third, the value of interpersonal relations was a function of the range, rate and magnitude of positive reinforcement involved in the relationship. Fourth, rules within the relationship could create freedom in the relationship. These assumptions then led Stuart to the contracting approach. The contracting technique involved the assessment,

modification and monitoring of interpersonal contingencies with important others in the lives of the youths. The specific methods used involved the setting up of written contractual agreements between the youth and the others. More specific details about the necessary steps for drawing up, implementing and monitoring a contract can be found in a number of sources (e.g., Derisi & Butz, 1975; Patterson, 1971; Stuart, 1971; Thomas & Walter, 1973).

Several studies were conducted which examined the effectiveness of behavioral contracting approaches with delinquents and their families (Davidson et al., 1977; Klein, Alexander & Parsons, 1977; Parsons & Alexander, 1973; Stuart & Tripodi, 1973; Stuart, Tripodi & Jayaratne, 1972). All of these studies, which represented experimental examinations of the efficacy of these techniques, indicated very positive outcomes.

2. Child Advocacy. The goal of the child advocacy approach is to provide environmental resources to meet areas of unmet needs. Child advocacy suggests a theoretical position of human behavior labeled environmental resources in which delinquents are viewed in a similar manner to other youths. It was pointed out that the resources which exist for delinquent youths are greatly inadequate in many areas and so, these youths require increased and redirected community resources rather than intensive individual treatment to fulfill their unmet needs (Davidson & Rapp, 1976).

Even though child advocacy had become a prominent strategy suggested as an alternative to current methods of dealing with

delinquents (Davidson & Rapp, 1976), there were many conflicting opinions as to how to specifically plan and implement an advocacy effort. There has been disagreement, for example, about who should be an adovcate, the type of activity an advocate should engage in and to what extent the advocate should generate resources for and/or with the target (Davidson, 1976). Davidson and Rapp concluded that there were few operating principles for establishing an advocacy relationship and that there was no data concerning the effectiveness of proposed programs. Davidson et al. (1977) provided the limited research data available. College students were trained to use these techniques with juveniles in a community based diversion program. A multiple strategy model of child advocacy was utilized, for it was stressed that child advocacy "involves a highly complex set of processes that can operate at a multiplicity of social levels and requires a multitude of strategies" (p. 231). These strategies will be discussed more fully below (see Methods section).

Hi-Relationship. Conceptually, the Hi-Relationship training model emerged from the interpersonal theory of human behavior (Sullivan, 1953) and the assumptions and findings about the essential ingredients of a therapeutic relationship (e.g., Rogers, 1957; Truax & Carkhuff, 1967). The interpersonal approach stressed the importance of patterns of interaction which occur between particular people. As such, delinquency has been seen as stemming from poor interpersonal relationships and disturbed interactional processes, particularly within the family (Bachman, 1970). The implication is

that the establishment of an intense interpersonal realtionship with a delinquent youth would aid in helping the youth gain a more realistic view of his current and past relationships.

The manner in which the relationship was to be developed in order to make it a facilitative beneficial one was based on components of the helping models and the relationship skills building models developed by Carkhuff (1969a, b); Egan (1975) and others. Rogers (1957) suggested that empathy, unconditional positive regard and genuineness in the helper were necessary and sufficient conditions for producing behavior change. Truax and Carkhuff (1967) concluded, after reviewing a number of studies, that therapists who were accurately empathic, nonpossessively warm in attitude and genuine were effective. As well, it was noted that the greater the degree to which the three elements were present, the greater the resulting constructive change in the client. Yet Carkhuff (1969a, b) and others (e.g., Egan, 1975) also went beyond the sole reliance and development of the essential three therapeutic conditions, by stressing the importance of action oriented dimensions in the helping relationship. Thus, in this TSI condition both the establishment of the essential therapeutic conditions and the utilization of action oriented dimensions of a relationship, such as confrontation and problem solving, were considered essential.

Much of the research using these helping models was conducted utilizing analogue techniques and examined only helper behavior (e.g., Goldstein, 1973; Truax & Carkhuff, 1967). Few studies have been

conducted with particular target groups or that attempt to examine other goals than change on the therapeutic dimensions of empathy, nonpossessive warmth and genuineness. Results of systematic research conducted using in vivo nonprofessional programs that stressed the importance of the relationship between helper and target (e.g., Goodman, 1972; Rappaport et al., 1971) are not directly applicable, for these programs utilized companionship TSI approaches that did not teach or require specific interpersonal skills. Anecdotal and indirect evidence of the usefulness of many of these helping techniques has been provided by their frequent use within training/supervision progams for nonprofessional volunteers in a number of crisis intervention and drug centers. Due to the lack of systematic research, it seemed important to implement a structured relationship program and to study its impact on both the helper and the client. The particular skills that were taught and the procedures that were used will be outlined in more detail below (see Methods section).

Lo-Small. Since a number of nonprofessional programs which provided minimal training/supervision had success, it seemed imperative to include a low intensity training/supervision condition. Thus the TSI model in this condition did not provide specific theory or focus on particular skill development for the nonprofessional helpers. Emphasis was given to the "natural" skills of the helpers and the unique characteristics that they already possessed. As well, a less structured format of training/supervision was utilized, so that fewer hours were devoted to their training and supervision. Thus, students

were given a great deal of freedom for the intervention they wanted to implement. The intervention with the youth, although possibly of a different nature than in the other more formally trained conditions, was supposed to be for the same number of hours as the interventions in the other conditions. Examining the intervention process at three points during the 18 week intervention (see Procedure section below), allowed for a systematic examination of the type and amount of intervention that was actually implemented by students in this TSI condition.

The inclusion of this low intensity condition also permitted the experimental examination of a number of potential attention placebo effects. The value of including comparable control and attention placebo groups in designs for research in psychotherapy, corrections, etc. has been well documented (Gold, 1974; Korchin, 1976). Students in the Lo-Small and Lo-Large conditions were given low intensity training and supervision, rather than no training and supervision, for ethical and practical reasons and in order to maintain a minimum level of performance and monitoring.

Psychotherapy research uses attention placebo groups to answer such questions as whether and how the specific therapeutic techniques being tested give results beyond the basic effects of the patient's faith, suggestibility, personal attention, etc. (Korchin, 1976). In a similar vein, the attention placebo, low intensity conditions in this study were seen as crucial in helping to answer several important questions about the TSI strategies. First, youth outcome might have reflected the fact that the court staff treated

all youth in the program, regardless of the TSI of the student volunteer, in an undifferentiated fashion. That is, the fact that the youth were involved in a university run diversion program might have reflected the amount of attention given to the youth (e.g., time spent with the youth) rather than what was actually implemented as a result of the training and supervision that the nonprofessional received. Thus, it was seen as important to experimentally examine the overall impact of the basic relationship, a one-to-one intense involvement with a college student for eighteen weeks. Third, helper outcome, e.g., feelings about the course and attitude change toward delinquent youths and themselves, might have reflected the actual, practical experience with the youth in general, rather than the specific skills they learned to apply, amount of time spent in training and supervision, and other components of the high intensity TSI strategies.

The specific procedures that were used in providing low intensity training and supervision are outlined in the Methods section.

Lo-Large. The rationale for this condition and the manner in which it was implemented are almost identical to that of the Lo-Small condition. The sole experimental difference between the two conditions was that of class size. In the Lo-Small condition the classes were approximately the same size as the classes in the Hi-Action and Hi-Relationship conditions. In the Lo-Large condition, training/supervision classes were twice as large as those in any other group. Based on group theory and both direct and indirect

evidence in applied settings (e.g., Goodman, 1972) it was expected that large groups (bigger than 10-12) would provide less of a social support network and less opportunity for personal supervision and case-related discussion. It was also anticipated that students in the larger group would be less satisfied with class discussions and group interactions (Thomas and Fink, 1963). Yet, the inclusion of a large training/supervision class also had numerous implications for program development and application--in terms of evaluating potential cost, time and personpower saving (Scioli & Cook, 1976).

Specific Research Goals

The basic aim of the research project described above was to examine and contrast the effects of four strategies of TSI used within a nonprofessional diversion program for juvenile delinquents. Multiple measures were used to examine issues related to youth outcome, student outcome and the interaction between youth and student variables during the intervention (process) and at the end (outcome). Essentially this research can be divided into the three major components outlined below.

The first component of this study dealt with the effect of the different TSI strategies on youth outcome, i.e., further police and court contact and school behavior. A five group (Hi-Action, Hi-Relationship, Lo-Small, Lo-Large and Control) experimental design examined the differential impact on outcome of the youth in a pre, post fashion. The major questions that were addressed in this section included: how did the content (or lack thereof) of TSI influence

youth recidivism and school behavior; how did the intensity of the training/supervision component (hi vs. lo) affect youth outcome; how did class size (small vs. large) within a specific TSI strategy affect youth outcome. In addition, the relationship between the process scales measuring the type and extent of intervention implemented and youth outcome were examined. Comparisons both within and among experimental groups were made at three time periods. These comparisons helped to determine how the specific strategies of intervention were implemented and whether and how the methods used and steps completed actually affected outcome.

The second part of this study examined the differential impact of the TSI strategy on student outcome. A four group (Hi-Action, Hi-Relationship, Lo-Small and Lo-Large) experimental design was used to answer such questions as: how did the type of training/supervision/intervention group to which the student was assigned--in terms of content, intensity, size of training/supervision group--affect the amount of knowledge the student had about different kinds of intervention strategies; how much the trainer/supervisors were relied upon outside of class; how students felt about their supervisors; how students felt about the TSI experience; how career plans changed and developed, how attitudes regarding such concepts as delinquents, court staff, volunteers changed; and how self-perception changed. A five group design (adding a group of college students who volunteered to be in the project but were randomly assigned to the control group and did not participate) was utilized to answer questions

about program participation such as: how much knowledge about different kinds of intervention strategies was known by college student volunteers who did or did not participate; how career plans of college student volunteers changed over the course of a year with or without program participation; how attitudes changed over the course of a year with or without project involvement; and how college student volunteers, with or without project experience, tended to perceive themselves.

The third and final component of this research examined the interaction between student and youth variables. The relationship between all measures examining student change and youth outcome were examined. The intervention scales served as process measures and were related to other dependent measures. Thus, it was possible to explore the linkages between TSI condition, volunteer satisfaction, personal development, attitude change, etc., and target success in some detail.

CHAPTER II

METHOD

Context of the Research

This study took place within the context of a larger two year research project funded by the National Institute of Mental Health. The overall project, the Adolescent Diversion Project, had already been in formal operation for four terms at the start of the present study and was aimed at replicating and experimentally examining a diversion project for delinquent youths (Davidson, 1976; Davidson & Rapp, 1976; Davidson & Rappaport, 1977; Davidson, et a., 1977; Seidman, Rappaport & Davidson, 1976a; Seidman, Rappaport & Davidson, 1976b; Seidman, Rappaport, Davidson & Linney, in press). College students working on a one to one basis with the diverted youth, served as nonprofessional change agents. The two year research project examined such components of the diversion model as the degree of involvement of the youth with the juvenile justice system at the time of referral, characteristics of the college students, selection of nonprofessionals and the scope of the intervention approach. The project took a multilevel approach, focusing on individual, group and systemic variables and interventions.

The entire program operated under the educational pyramid/ triangular model (Seidman & Rappaport, 1974). The principal

investigator supervised, trained and consulted with the nine graduate and two undergraduate students who had responsibility for training and supervising the small groups of undergraduates and for coordinating the project research. The nonprofessional training and supervision segment was a formal three term undergraduate psychology course at Michigan State University (Psychology 370, 400, 490).

In addition to the project's relationship with the university and psychology department, there were close ties with the Lansing Police Department and local juvenile justice system. The Ingham County Juvenile Court saw approximately 500-600 youth offenders during 1977-1978. It was from this group that project referrals were made.

In order for the Adolescent Diversion Project to be initiated, administrative agreements had to be developed with key individuals within the juvenile justice systems who would be helpful to the project. While there was a willingness on the part of these individuals to try this alternative approach to juvenile justice and to refer a significant number of youths to this project, several important decisions had to be made. It was decided that youths would be referred only after having had an inquiry and preliminary hearing and having admitted to the charges presented to them. Procedures were established for determining which youths were acceptable to the project, for diverting and referring the youths, for randomly assigning them to experimental and control conditions and for ensuring voluntary participation. Decisions to refer the

youth were left to the discretion of the court referee who conducted the preliminary hearing.

Subjects

Youths were eligible for referral to the project if (a) they had a court petition filed against them by police, school, parents or others; (b) the court accepted the petition; and (c) during the inquiry and preliminary hearing the youths admitted to the charges presented against them (see Figure 1). The project did not accept youths who were involved in only a single minor offense or would have been dismissed by the court.

Seventy-seven delinquent youths were referred to the project from October, 1977 through January, 1978. Four of the youths decided they did not want to participate. The youths who decided that they wanted to be a part of the project had the following characteristics: 62 were males and 11 were females; 51 were white and 22 were non-white; the average youth was in the ninth grade with a range of 5th to 12th; 65% of the youths came from broken homes; and the average age was 14.3. Criminal activities ranged from across the full spectrum, but tended to be nonserious and serious misdemeanors and nonserious felonies.

Stratified by court referee, race, sex, formal or informal handling of the case and order of referral, the youths who decided to participate were randomly assigned to one of the five conditions. At the outset 14 youths were assigned to Hi-Action, 13 to Hi-Relationship, 15 to Lo-Small, 16 to Lo-Large and 16 to the control

Figure 1

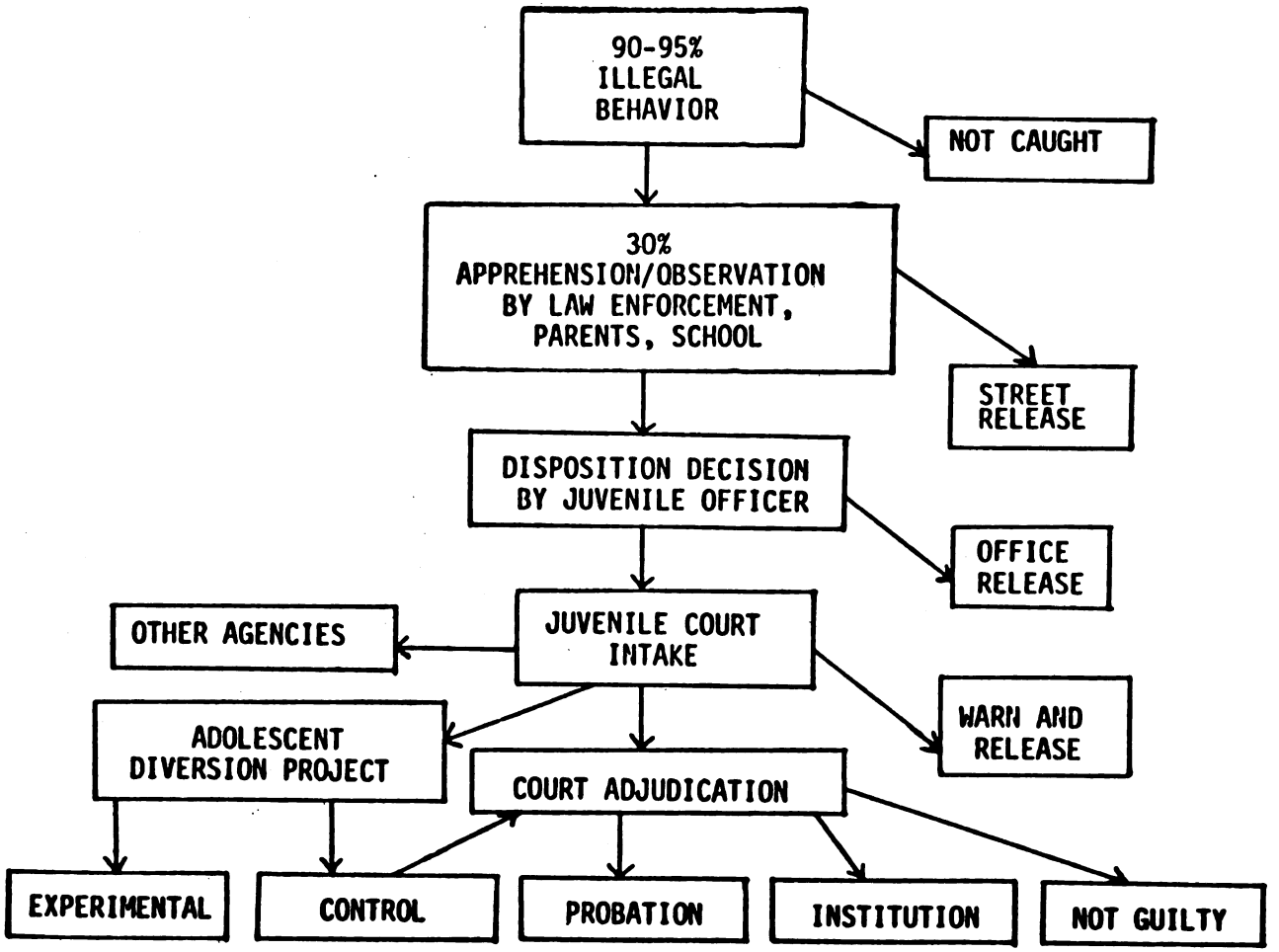

Figure 1. Flowchart of Youth Selection.

group. One college student in the Hi-Relationship condition had a number of personal problems shortly after being assigned to a youth and decided to drop out of the course. During that same period, one youth in the Lo-Small group who had agreed to participate decided not to, and ultimately was totally inaccessible to the volunteer. While this youth was still considered a part of the project, the volunteer was assigned to the youth who had become available from the Hi-Relationship group. Finally, in the Lo-Large group there was one additional youth. This youth was assigned to a college student who had been given special permission to enroll in the course. This special status was the result of an agreement with the volunteer bureau at Michigan State University during their participation in an earlier portion of the research project. Data collected from this college student were not included in any of the student measure analyses since the student did not go through the same admission procedures as the other volunteers (see Table 1 for a final tally of the youths in each condition).

In order to check the credibility of the random assignment procedures, a number of Chi-Square and one step Analysis of Variance were performed. There were no significant differences between condition on any of the 29 pre variables.

Nonprofessional Volunteers

The nonprofessional volunteers were a group of 109 college sophomores, juniors and seniors. Fifty-eight were in the experimental groups and 49 in the control/waiting list group. (On the

Table 1

Final Number of Subjects in Each Condition

Subjects	Type of Data	Condition					Total Number
		Hi-Action	Hi-Relationship	Lo-Small	Lo-Large	Control	
Youth	Outcome	14	12	15	16	16	73
	Process "Experimental"	13	12	14	15	N/A*	54
Student	"Experimental"	14	12	14	15	N/A*	55
	"All"	14	12	14	15	28	83

*N/A = Not appropriate for these analyses.

whole they tended to be white and single and had an average age of 20.7.) They were randomly selected from a larger group of students who wanted to participate in the class. The volunteers were involved in the project as part of a three term psychology course, running from Fall, 1977 through Spring, 1978, and received four academic credits per term.

In order to determine whether the students in the four experimental groups, the control group who came back for Time 4 (end of project) measures (n = 28) and the control group who did not come back for Time 4 measures (n = 19, two others were not invited back because they had become involved in the project in other capacities) were equivalent, a number of demographic and descriptive variables were analyzed using Chi-Square and Analysis of Variance methods.* The randomization procedures used seemed to have been effective, for only two variables of the 70 examined were different, at less than the .05 level of significance.

On a number of additional comparisons between controls who came back and those that did not the only difference found was that controls who came back were more likely on the pre project measures to indicate a preference for a human service career relevant or fairly relevant to the project, while controls who did not come back were less likely to want a human service career and were more unsure of what kind of career they did ultimately want.

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*Copies of all measures can be obtained by writing the author at the following address: Department of Psychology, Michigan State University, East Lansing, Michigan, 48824.

Of the 58 students selected for the experimental groups, 14 were each assigned to the Hi-Action and Hi-Relationship conditions and 15 each to Lo-Small and Lo-Large groups. On the first day of class one of the students assigned to the Hi-Relationship condition notified the project office of her intention not to participate in the course. Due to the limited time available to find a replacement before class began, a decision was made not to replace her. This group dropped to 12 students when a student underwent a series of personal problems at the end of second term and wanted to drop the course. One student in the Lo-Small group decided to drop out of school completely during the middle of the second term. Since these two volunteers did not work with a youth for a significant period of time (two days in the former case; not assigned in the second) and since these students did not complete measures at all of the time periods, they were not included in any of the student data analyses (see Table 1 for final tally of students in each condition).

Trainers/Supervisors

There were ten trainer/supervisors who were involved in the training and supervising of the students in the experimental conditions. A brief description of each of the ten will be provided below.

The first trainer/supervisor was an advanced graduate student in clinical psychology and had major interests in the area of community pscyhology. She had previously taught a Hi-Action class and had been involved in planning and implementing the court, school and police

data collection procedures for this project. She had worked in an alternative bail project and with legal aid.

The second was a senior majoring in psychology who planned to go on to graduate school in clinical psychology. She had been a student volunteer in this program, a data coder and an interviewer of delinquents, their families and peers.

The third and fourth were male advanced graduate students in ecological psychology. They had each taught two Hi-Action classes and had primary responsibility for training student interviewers and developing the process data scales. The third had a professional interest in admistrative research in social services; the fourth had extensive experience as a volunteer and paid staff working with delinquents and was interested in the evaluation of innovative social systems modification.

The fifth was an advanced graduate student in ecological psychology who had taught two Hi-Action classes, had been involved in the development of the court, school and police data collection procedures and had conducted referral interviews with the youths and their families at the court. His previous experience included a position as an assistant state planner in a legislative interim study on juvenile services in the state of Nebraska. He was interested in social service system networks and personnel issues.

The sixth was an advanced ecological psychology graduate student who had taught two Hi-Action classes, had developed a behavioral measure for selecting nonprofessionals and had primary

responsibility for computer and data processing. She had worked as a volunteer at a crisis center and had much experience teaching and training trainers to teach helping skills to volunteers. She had professional interests in working with nonprofessionals.

The seventh and eighth were advanced graduate students in clinical psychology. Both had had previous experience doing research on and working directly with delinquents in a token economy system. The seventh had taught two Hi-Action classes. She had had several years experience as a therapist and had led communication skills workshops. She was interested in professional and nonprofessional training. The eighth had worked as a trainer and supervisor of volunteers at a crisis intervention center. She was interested in nonprofessional training and in short term behavioral treatment modalities.

The ninth was a senior majoring in social work. She had been both a volunteer and a volunteer student coordinator, assuming management responsibility at a residential shelter for delinquent and abused children. During this past year she had a placement at Head Start as a case worker with children and their families.

The tenth was a second year graduate student in social work, who had major interests in planning and administration. She had been a volunteer in a number of programs and, as a staff member at a youth service bureau, she ran a volunteer in court program. During the past year she was a staff advisor in charge of several programs at the Michigan State Volunteer Bureau.

Trainer/supervisors for the Hi-Intensity classes were given their choice as to which condition they wished to teach/supervise. Based on their preferences, the first four above were assigned to the Hi-Action condition, the last four to the Hi-Relationship condition. The ninth and tenth trainer/supervisors were assigned to the Lo-Large and the Lo-Small conditions. They were selected as trainer/supervisors for these two conditions because they had had experience in the kind of program that this study was attempting to duplicate in the Lo-Intensity conditions.

Research Design

This research included four basic designs. First, in order to answer the questions about the differential effectiveness of TSI strategy on youth outcome, the research design was a five by two design (see Table 2). The two dimensions were TSI condition (Hi-Action, Hi-Relationship, Lo-Small, Lo-Large, Control) and time (Pre, Post). Second, in order to answer questions about the impact of the TSI condition throughout the experience, the research design was a four by four design. The two dimensions were training condition (four) by time (Time 1, Time 2, Time 3, and Time 4) (see Table 3). Third, so that questions about how the overall program experience affected the students would be answered, a five by two research design, condition (five) by time (Time 1, Time 4) was used (see Table 4). Fourth, analyses examined the correlational aspects of a number of variables (e.g., student characteristics, process data, TSI strategies) with outcome success or failure.

Table 2

Youth Outcome

Condition	Time	
	Pre*	Post**
Hi-Action n=14	1. School Behavior 2. Police Contacts 3. Court Petitions	1. School Behavior 2. Police Contacts 3. Court Petitions
Hi-Relationship n=12	1. School Behavior 2. Police Contacts 3. Court Petitions	1. School Behavior 2. Police Contacts 3. Court Petitions
Lo-Small n=15	1. School Behavior 2. Police Contacts 3. Court Petitions	1. School Behavior 2. Police Contacts 3. Court Petitions
Lo-Large n=16	1. School Behavior 2. Police Contacts 3. Court Petitions	1. School Behavior 2. Police Contacts 3. Court Petitions
Control Group n=16	1. School Behavior 2. Police Contacts 3. Court Petitions	1. School Behavior 2. Police Contacts 3. Court Petitions

*Pre = One year before youth entered the project

**Post = Interval between the time the youth entered the project and his/her termination date

Table 3

Experimental Training Conditions

Condition	Time Intervals			
	Time 1**	Time 2**	Time 3**	Time 4**
Hi-Action N=14	5,6*	1,2,3,4,6,7*	2,3,6,7*	1,2,3,4,5,6,7*
Hi-Relationship N=12	5,6*	1,2,3,4,6,7*	2,3,6,7*	1,2,3,4,5,6,7*
Lo-Small N=14	5,6*	1,2,3,4,6,7*	2,3,6,7*	1,2,3,4,5,6,7*
Lo-Large N=15	5,6*	1,2,3,4,6,7*	2,3,6,7*	1,2,3,4,5,6,7*

*1=Training Tests; 2=Tally of Supervisor Contacts; 3=Ratings of Supervisors; 4=Course Evaluation; 5=Career Goals; 6=Semantic Differential; 7=Self-Rating.

**Time 1=May, 1977; Time 2=December, 1977-Post Training; Time 3=March, 1978-End of Term II; Time 4=May, 1978-End of Term III.

Table 4

All Student Conditions

Condition	Time Intervals	
	Time 1**	Time 4**
Hi-Action N=14	5,6*	1,5,6,7*
Hi-Relationship N=12	5,6*	1,5,6,7*
Lo-Small N=14	5,6*	1,5,6,7*
Lo-Large N=15	5,6*	1,5,6,7*
Control Group N=28	5,6*	1,5,6,7*

*1=Training Tests; 5=Career Goals; 6=Semantic Differential; 7=Self Rating.

**Time 1=May, 1977; Time 4=May, 1978.

Procedure

Recruiting and Selecting Volunteers

The Adolescent Diversion Project was reviewed by the Human Subjects in Research Committee at Michigan State University and was found to have met all necessary criteria.

In the spring of 1977, a letter was sent to 3500 social science majors announcing the availability of a three term psychology sequence, Psychology 370, 400, 490. The letter described the course and field experience in very general terms. Students were asked to call the project office if they were interested. Four hundred and fifty students called in and were told the time and location for the first information-assessment meeting. Approximately 300 students came to this first session. Students were given a general description of the program and the extensive evaluations that would be required of them over the course of the year. The requirements, including the six to eight hour a week involvement for eighteen weeks with their assigned youth and a three term commitment, and the many hassles involved, such as having to go out in a cold winter and expending much time, money and effort, were stressed. Students were then given an opportunity to ask questions. The students who were still interested in participating, approximately 250, were asked to fill out several forms, including one dealing with career goals (see Table 5 for Student Data Timetable). They also had to sign a contract expressing their intent to be in the project and to be available for further interviews in one year. Since there were many more students

Table 5

Student Data Timetable

Condition	Time 1*	Time 2*	Time 3*	Time 4*
				Time Intervals
All Experimental Conditions		1. Training Test		1. Training Test
		2. Tally**	2. Tally**	2. Tally**
		3. Ratings of Supervisors	3. Ratings of Supervisors	3. Ratings of Supervisors
		4. Course Evaluation		4. Course Evaluation
	5. Career Goals			5. Career Goals
	6. S-D***	6. S-D***	6. S-D***	6. S-D***
		7. Self-Rating	7. Self-Rating	7. Self-Rating
Control				1. Training Test
	5. Career Goals			5. Career Goals
	6. S-D***			6. S-D***
				7. Self-Rating

*Time 1=May, 1977; Time 2=December, 1977-Post Training; Time 3=March, 1978-End of Term II; Time 4= May, 1978-End of Term II; **Tally of Supervisor Contacts Outside Class; ***Semantic Differential.

than could be accomodated in the course, it was explained that students would be picked at random to participate and that while the contract required students to fill out further assessments it did not guarantee admittance to the course. A second pre-selection meeting was scheduled so that students could complete a second battery of measures, including the Semantic Differential and so that attrition of the less motivated students would occur. One hundred and thirty-four students attended. They were told that they would be informed over the summer about their status for the fall.

Of the 134 undergraduates who completed the entire pre-assessment battery, 51 were males and 83 were females. It was decided to stratify for sex. As mentioned above, 14 males and 14 females were selected at random for the Hi-Intensity conditions; 15 males and 15 females for the Lo-Intensity conditions; 22 males for the waiting list/control group which depleted the entire group of males and 27 females. Twenty-seven females were rejected. Letters were sent out over the summer to all those who were accepted in the experimental groups, asking them to return a card indicating their continued desire to take the course. Those who said no ($n = 7$) were replaced by a same sex individual chosen at random from the waiting/list control group. Once the class list was finalized, letters were sent to all those on the control and rejected list informing them of their status. The 14 males and 14 females in the Hi-Intensity group were then randomly assigned to either the Hi-Action or Hi-Relationship conditions. The 15 males and the 15 females in the Lo-Intensity

condition were assigned at random to the Lo-Large or Lo-Small conditions.

Referral of Delinquent Youths

After the decision was made to divert the adolescent to the project, the court person briefly explained the program to the youth and his/her family. If the youth and family were interested, a referral interview was set up and then conducted by a member of the Adolescent Diversion Project staff. During the initial interview the program was explained in detail and the assessment methods involved, the random assignment procedures and the lack of guaranteed admittance in the project were described. If the youth and the parents were voluntarily willing to participate in all aspects of the project, to commit themselves both verbally and in writing to this effect, to fill out basic demographic information and to sign release of information forms for school, police and court data, then a determination of the youth's status was made. If the youth was designated as a control, the youth and his/her family were told that an interviewer would contract them for pre, process and post assessments. They were also referred back to the regular court staff for disposition, which meant dismissal or formal processing through the court and assignment to a case worker. If the youth was assigned to the project he/she and his/her family were told that both an interviewer and a volunteer would be contacting them shortly.

Assignment

Once project youths were randomly assigned to one of the four experimental conditions, the volunteer in the particular condition was assigned to the youth on the basis, when possible, of mutual interests, sex and race. The student was told to initiate the contact by phone and from that point on to plan to work with the youth for six to eight hours per week for a full 18 school weeks. Some students received assignments by the fourth week of the term, during October, 1977. Since there was not a constant rate of youths referred, it took until January, 1978, before all volunteers were assigned.

Training/Supervision/Intervention Strategies

No Training Controls. Control students were notified over the summer that they had been randomly assigned to this condition and would be placed on a waiting list for subsequent classes. They neither received training nor worked with a youth. Time 1 assessment data was collected in the spring, prior to selection. Of the 49 students in this condition, 28, 20 females and 8 males, responded to the request to complete Time 4 measures and were paid $12 for their participation.

Experimental Conditions. Students assigned to all experimental groups received four academic credits per term. They were required to attend all class sessions scheduled for their particular training/supervision group, to hand in weekly progress reports, to

keep a log book--a running account of contacts with the youth and with others on behalf of the youth--to participate in assessment procedures and process interviews throughout the three terms and to meet with their youth six to eight hours a week for 18 school weeks. Grading was based on responsibility demonstrated in class and with the youth, class attendance, case presentation, class discussion and following ethical standards. In addition, grades for students in the Hi-Intensity conditions were based on the weekly oral and written examinations and practice assignments in the training segments.

1. Hi-Intensity Training/Supervision/Intervention. Each of the four Hi-Intensity classes (two Hi-Action, two Hi-Relationship) were composed of six to seven students and two graduate students (or one undergraduate and one graduate student) co-leaders. Each class met for two hours weekly. The first eight weeks of the fall term were designated the training segment and students were expected to master outside readings and the content of the training manual for their class. Mastery of subject matter was demonstrated on oral and written questions in the first hour of the class and on homework assignments, role plays and class discussions in the second half of the class.

After the training component was completed the classes were used solely for supervision. Since students were assigned cases as early as the fourth week of training, part of each training session became supervisory in nature. The structure, general format and class size of the two Hi-Intensity conditions were similar. The

content of the TSI strategy, the supervision philosophy and the intervention model were very different.

a. Hi-Action. Students in the Hi-Action condition were trained in the use of child advocacy and behavioral contracting techniques, the intervention approaches used in the pilot and first year of this project.

The first week of training involved an overview of the course and detailed classroom expectations. A brief history of the juvenile justice system and the notion of diversion was provided as was a description of the local court system. Finally, the theoretical rationales behind the behavioral conceptions of human behavior and delinquency were presented in this manual.

In the manual for week two a rationale for the environmental resources conception of human behavior and juvenile delinquency was provided, for child advocacy is based on this rationale. A section explaining the reasons for using a combination of contracting and advocacy was also included.

During the third week of training there was a brief description of the initial meetings between the student and the youth. The main emphasis for the student was on performing an indepth assessment of the youth and his/her situation, for this was seen as the essential starting point for both the contracting and advocacy methods. An indepth assessment entailed gathering information about the youth's interpersonal network, identifying the unmet needs of the youth and discovering the available community resources for meeting these needs.

All of this information was to be considered when formulating an intervention strategy.

The fourth week of training was experiential in nature. Students were assigned, as homework, to assess a friend's situation or behavior. This task gave them experience in being specific in gathering information, an essential part of conducting an assessment. Role plays of the situations described in the homework and of the initial meetings with the youth and his/her parents were performed.

The fifth week covered the topic of selecting and initiating an intervention strategy. Once the situation had been assessed from both the behavioral and advocacy perspectives, the student would be expected to select and executive a plan of action. This plan would include either or both methods. For behavioral contracting, initiating a plan would involve negotiating a contract between the youth and some significant other(s). The student learned how to assume the role of mediator between the youth and his/her interpersonal network. The contract itself included such components as privileges, responsibilities, bonuses and sanctions and had a means for monitoring the performance of each party. For advocacy, initiating a plan would involve choosing an advocacy strategy ranging from positive to neutral to negative action with or against the critical individual or agency. Secondly, the student would choose to bring about change at either an individual, administrative or policy level. Thus, the student would assume the role of advocate for the youth and his/her situation. At the beginning advocacy was to be carried out for the youth. However,

the youth was to be kept informed about these advocacy efforts and was to be as involved as possible.

The sixth week was another totally experiential session, so that students had the opportunity to practice contracting and advocacy interventions. For homework students were expected to set up a hypothetical contract between two people and decide how to go about talking to a person in performing an advocacy effort.

Week seven presented information about how to monitor the intervention that was made. It was stressed that for both approaches it was not enough to just implement a strategy. Rather, the students were taught that they had to continually evaluate the success in achieving goals and that they had to be sensitive to sources of feedback. They learned that they might need to renegotiate a contract or make additional advocacy efforts. Role plays of situations where these steps were needed were utilized.

The manual for week eight, the final week of training, discussed how to terminate the involvement with the youth. Both individual models stressed the importance of relaying the training that the student had received to the youths themselves and to their significant others so that they could continue to use these methods and techniques to perpetuate and/or expand the changes that had been made. Finally, there was a section on how to prepare a termination report and how grades and the course itself would change as the training component ended.

Once the eight weeks of training were completed, the two hour weekly class period for the remainder of the three terms was spent in supervision. Those students who had already been assigned presented their cases to the class. This presentation entailed relating the past week's activities with the youth--focusing on the phase they were at in the intervention model and on what they had learned about the youth and his/her situation. Supervisors and classmates helped the students clarify and understand what had been learned and accomplished in the past week. They also helped the student plan how to implement the next steps of the intervention strategy and to develop overall goals for the youth during the 18 week intervention period.

The interventions that were implemented by the students in the Hi-Action classes were expected to follow the steps outlined and modeled in the training/supervision segment. Students were supposed to engage in whatever activities were necessary with the youths and their significant others so that the youths' situations could be accurately assessed. Based on this information, discussions with the youths and significant others and decisions made in the supervision group, students were then expected to choose a specific intervention strategy, implement it and then monitor its impact. For example, if a particular situation seemed to require a contracting intervention, the student was expected to discuss with both parties what they wanted to be included in the contract, to draw up a specific contract, to help them initiate and monitor its use and

to help them determine its success in improving the original situation. If not resolved, the student had the option of renegotiating another contract. Once the situation had been dealt with, the student could decide to expand the contract to include other areas of concern, could negotiate contracts between the youth and other individuals, or could choose to begin some advocacy efforts, depending of course on the needs of the youth and which strategies seemed most appropriate. If an advocacy approach was selected the student had to decide on the best approach to use with the targeted individual, agency, etc. having the desired resource. For example, the student might have decided to take a positive approach with a school counselor, telling him/her of all the strengths and interests of his/her youth and requesting that the youth be allowed to enter a special school program. If that approach did not work the student might have decided to go to see another individual or take another approach with the same person. Students using either or both strategies were expected to instruct the youths and significant others in the specific techniques they had utilized during the 18 week intervention period, so that these individuals could learn how to implement them on their own. This instruction was to include discussions of what was accomplished and how, role plays of possible future situations and actual trials if a situation seemed appropriate.

It is clear from the above discussion of the Hi-Action TSI model that training and supervision were designed so that particular types of interventions, with specific phases and techniques, were to be implemented with the youths assigned to these students.

b. Hi-Relationship. The other Hi-Intensity TSI condition used a Relationship approach. Similar to the first week of training in the Hi-Action condition, the first week in this manual included an overview of the course and classroom expectations, a brief history of the juvenile justice system and diversion and a description of the local court system. As well, the theoretical rationale behind the interpersonal conception of human behavior and delinquency was presented.

The second week of training focused on the essential ingredients of a therapeutic relationship--empathy, nonpossessive warmth and genuineness.

In the third week of training there was a brief description of the initial meetings between the student and the youth. The main emphasis in these meetings was to establish a comfortable, trusting, facilitating relationship between student and youth. The students were encouraged to be spontaneous, honest and creative within the relationship, as each relationship would differ. The role of crises in developing and maintaining relationships was also discussed in this week's unit.

The fourth week of training stressed self-understanding and the importance of knowing and accepting one's own feelings and behaviors when working with a youth. The rationale for why empathy must be taught, a definition of what empathy is, and a discussion of how one learns empathy were also provided in the manual. Beginning with this week, class sessions became more experiential in nature.

Students discussed homework in which they identified feelings, generated a feeling word list and practiced responding to statements with feelings.

The fifth week of training focused on teaching and developing both feeling and other types of responses so that students would become more effective in responding to and interacting with their youths. Clarification was explained as a means of decreasing misunderstanding and helping the youth increase his/her self-understanding. The skill of paraphrasing was discussed as a means of clarification. Common errors that people make when using these skills, such as empathizing only with negative feelings, were outlined. In class students discussed interactions over the past week when they tried out their skills, discussed a homework assignment dealing with how to respond and practiced more empathy and paraphrasing responses.

The sixth week of training detailed the importance of being contructively open in relationships. The skills of behavior description, giving feedback and confronting discrepancies were defined and developed. Students practiced these skills in class.

The seventh week of training focused on the importance of facilitating autonomy in the youth that the student was working with. Responses that tend to lead toward and away from developing the youth's independence and autonomy were detailed. The other section of the manual presented an overview of the problem solving process and detailed the first half of this process. This included defining

the problem and goal, clarifying the rewards and price of solving or not solving the problem and generating and discussing alternatives.

The eighth week of training completed the presentation of the problem solving process--including how to initiate change and how to order the sequence of activities. A summary and model of the relationship building process was presented and the components of an effective termination were covered. As in the other Hi-Intensity condition, the importance of relaying the training that the students had received, particularly about relationship building and problem-solving, to the youths themselves was emphasized. Finally, there was a section on how to prepare the termination report and how grades and the course would change as the training component was completed.

The supervision structure closely paralleled that of the Hi-Action condition, for once training ended the two hour weekly class sessions for the remainder of three terms was spent in the supervision of cases. Students presented their cases--focusing on what they had learned about the youth--in terms of the youths' feelings, thoughts, etc., what they had learned about their own feelings and thoughts, how they saw their relationship developing and what phase they were at in the intervention model. Supervisors and classmates helped the students to clarify and understand not only what they had learned and accomplished in the past week, but also what they felt. They also helped the students to plan how to implement the next steps of the relationship building strategy and to develop overall goals for the youths and for their relationships with the youths during the 18 week

intervention period. Thus, the orientation of both training and supervision was to increase the students' repertoires of interpersonal and helping skills and to promote warmth, empathy, etc., in interpersonal relationships both within the supervision group and between the students and their assigned youths.

In the intervention with the youths, students in the Hi-Relationship condition were expected to follow the steps outlined and modeled in the training/supervision segment. Students were expected to engage in activities and behaviors that would help to establish comfortable, trusting relationships. They were expected to be empathic, warm and genuine in the ways that they responded to the youths, to facilitate both the discussion of more personal meaningful issues and the establishment of a deeper relationship between student and youth. Once important issues and problems were identified, the students were to go through the problem solving process together with their youths, helping them to define and explore the problems more fully, to develop alternatives and to plan how the youth would implement the change. Students were not to be involved in initiating action with others on behalf of their youths, but were to encourage their youths to be independent and autonomous and make changes on their own. Students were to instruct the youth in how to develop more meaningful relationships with people and how to go through and use the problem solving process. All in all, the interventions implemented by the students were expected to follow the stages and make

use of the techniques presented in the training and supervision segments of the course.

2. Lo-Intensity Training/Supervision/Intervention. There were three Lo-Intensity classes, two with seven to eight students apiece in the Lo-Small condition and one, with 15 (actually 16, one was not included in student data analyses) students, in the Lo-Large condition. These two conditions modeled in several respects the type of TSI packages often presented in a volunteer in court type program. "Court volunteer training is rarely elaborate, intensive or formal. . . .The average seems to be about five to ten hours, spread out over two or three consecutive evenings in one week, or once a week over several weeks" (Scheier & Guter, 1971, p. 74). There is generally both an orientation period for providing a core of necessary information and a training period for discussing more detailed knowledge about the specific job.

a. Lo-Small. The Lo-Small model included three orientation meetings, held during the first three weeks of the term, which were primarily didactic in nature. The first meeting involved a general introduction of the students to each other, the supervisors and the program. Class and field experience requirements were explained. Confidentiality and class and case responsibility were stressed. Finally, an overview of the project--including how the meetings would be structured, what the general characteristics of the juveniles would be and what kinds of activities the volunteers would do were presented.

In the second meeting a lecture was given on theories of delinquency and on the justice system and court. The theories of delinquency that were covered included sociological theories--such as differential association; psychological theories--such as Freudian theory; and the interactionist view--including labeling theory. The court system in Lansing was described in some detail and diversion was defined. The Adolescent Diversion Project was then placed in perspective, in terms of fitting in with the local court and with the notion of diversion. In the final portion of this meeting the mechanisms for assigning a youth to a student in the class were presented and a brief discussion of what to do in the first meeting with the youth took place.

In the third meeting, several topics were discussed. First, there was a general overview of what the students might do with the youths. This included getting to know the youths and their problem areas, in the same way one gets to know any stranger, and then trying to determine how to make changes and solve identified problems. The availability of information on services in the community and university were discussed. The necessity of being supportive and hanging in there with the youth, even when things got difficult were emphasized. The importance of working within an 18 week time frame and preparing the youth for termination were stressed. Finally, students were told how and when to contact their supervisors.

The 3 training sessions described above were primarily led by the ninth trainer/supervisor described above. She was assisted in this initial phase by the tenth trainer/supervisor.

Supervision sessions in the Lo-Small condition were two hours in length and held monthly for the remaining three terms. They were co-led by the two trainer/supervisors above. The overall philosophy in supervision was that the interest, commitment and high level of motivation and enthusiasm of volunteers could have positive impact on these youths without the need for more specific training (Rappaport et al., 1971). It was believed that not providing a specific intervention plan would allow them the opportunity to try out whatever seemed useful, to be maximally free and flexible in whatever they chose to do, thus utilizing the "natural skills" which they alrady possessed when they began the project. Supervision was to be a time for idea-exchanging, holding problem-solving discussions and for dealing with routine administrative matters. The supervisors were to lead the class in a non-directive fashion. Questions and issues raised by the students were to be explored with the class as a whole. The supervisors' task was to summarize and integrate discussion and to reflect the comments and questions of the students. Students were to be encouraged to try out all kinds of alternatives in the actual interventions with the youths.

b. Lo-Large. The Lo-Large TSI condition was identical to the Lo-Small condition except for one manipulation, class size. The Lo-large group had 15 students meeting all together in both the training and supervision segments. The Lo-Small groups had seven to eight students per class.

Supervising/Monitoring of the Experimental Conditions. Supervisory behavior was monitored weekly in the case of the Hi-Action and Hi-Relationship groups and monthly for the Lo-Small and Lo-Large groups. Hi-Intensity supervisors for each condition met separately. They met two hours per week with the principal investigator to discuss supervision strategies and problems. The principal investigator and/or graduate student serving as coordinator for the particular experimental condition listened to part of one audio taped class session in each condition per week. If discrepancies from the TSI strategy seemed to be occurring they were discussed in the supervision sessions. Both the principal investigator and the graduate student-coordinator for the condition kept notes on the cases discussed.

Measures

Delinquent Youths. Outcome was determined by pre-post measures using three archival sources of data. For each of the three record sources data for the Pre-project measure was gathered for one year prior to referral to the project. The Post measure included the referral to termination interval (approximately 22 weeks--18 weeks of intervention plus school vacations).

1. School Records. School attendance, grade point average and a proportion based on credits earned to credits taken were examined. School behavior is frequently monitored in programs with youths. Pre-data for this study was collected as soon as possible after the youth was referred. The post data, which actually involved school performance

during the project, was collected on a quarter basis, to minimize slippage of data.

2. Apprehension-Police and Court Records. The frequency of apprehension-police contacts as derived from police and sheriff departments and department store contact cards and the number of offenses on court petitions filed were recorded. These are all indications of police apprehension and alleged charges. These are standard outcome criteria used when working with delinquent youths. In addition to the frequency counts, a seriousness of offenses scale was calculated according to a weighted scheme derived from the work of Sellin and Wolfgang (1964).

Nonprofessional Volunteers. Due to the recognized impact of the helping experience on the nonprofessional helper as well as the target group (e.g., Durlak, 1971), and the understanding that target outcome is a function of the interaction of a number of variables (Rappaport, 1977), a variety of tests, questionnaires, and other measures were used to assess the student nonprofessionals. This was done in order to systematically examine the impact of program participation in general and TSI condition more specifically on both students and youths (see Table 5 for Student Data Timetable).

1. General Approach to Measurement Development. In order to simplify the interpretation of a great number of variables included on the student measures a variety of rational-empirical scale construction and refinement strategies were employed (Jackson, 1970). This process involved a number of separate steps. First, endorsement

frequencies of the items were checked. Items with low variance were eliminated from further analyses. Second, either a principal components analysis using varimax rotation (Tatsuoka, 1973) was performed in order to extract factors or interitem reliability scores were calculated on rationally generated scales. When principal components analyses were performed the number of factors was determined by the use of either Kaiser's (Kaiser & Caffry, 1969) criteria or the scree test (Cattell, 1952). The minimum acceptable loading for inclusion of an item on a factor was .5. Scale composition of the rationally generated items was determined by the achievement of high coefficient alphas (Cronbach, 1970) and significant corrected item-total correlations (statistical significance at less than the .05 level was used). In deciding upon final factor and scale solutions, convergent and discriminative validity properties of the factor/scales were attended to, for the goal (using either or a combination of both methods of data reduction) was to maximize scale reliability properties and minimize inter-scale correlation. Logical and empirical fit of the items on the factors/scales was also considered important.

The following subsections will discuss the individual measures administered and will present the analyses on which final data reduction decisions were made.

2. Training Test. A training test (called Intervention Opinions in order to eliminate the students' fear that they were being tested per se) was administered at Time 2 (the end of the

training) and Time 4 (the end of the project) to experimental students. Controls were given the test during the Time 4 assessment. The test was used to compare the mastery level of different concepts and skills, to see how well students learned and remembered different skills from training/supervision and how this knowledge related to youth outcome and TSI experience.

The test included items based on the skills taught in the Hi-Action group--behavioral contracting and child advocacy--and those taught in the Hi-Relationship group--relationship skills. As a result of rational-empirical scale construction of the items, two scales were formed. The first, Action, consisted of items concerned with behavioral contracting and child advocacy training (14 items; alpha .74). The second scale, Relationship, contained items dealing with the relationship components of training (11 items; alpha .68) (see Table 6 for a list of the items on these two scales).

3. Course (TSI) Evaluation. An extensive Course (TSI) Evaluation questionnaire was generated and given at Time 2 and at Time 4. Since enthusiasm, morale, etc. have been seen as characteristics which nonprofessionals possess and which help to make them successful (e.g., Durlak, 1971), it was thought to be important to examine how such factors as satisfaction with the TSI approach and class structure affected the levels of these characteristics and how and if they related to youth outcome.

The first portion of the Course (TSI) Evaluation was given to all experimental students, in order to measure satisfaction, feelings

Table 6

Training Test - Internal Consistency Analyses

Scale = Action

Variable		Corrected Item-Total Correlation
2	Shortcoming of Medical Model	.21
4	Rules for Contract	.62
7	Characteristics of Good Monitoring System	.36
10	Tinker vs. Des Moines	.25
11	Environmental Resources Explanation of Delinquency	.46
12	Premack Principle	.33
15	Assessment Period	.41
19	Multiple Strategy Approach	.27
23	Operant Explanation of Delinquency	.27
24	Positive Approach to Advocacy	.44
26	Information for Advocacy	.37
28	Measures for Illinois	.34
35	Initiation and Maintenance of Human Behavior	.24
38	Implementation of Advocacy	.38

Alpha = .74

Scale = Relationship

6	Feedback	.40
8	Warmth toward Destructive Person	.21
9	Reciprocal Affect	.46
14	Empathy, Feedback, Questioning, Self-disclosure, Paraphrasing	.25
18	Core Therapeutic Conditions	.38
20	Miscommunication of Feelings	.30
22	Time to Respond Empathically	.27
27	Helper Owns and Describes Feelings	.25
30	Openness and Improving Relationships	.30
33	Confrontation of Discrepancies	.31
34	Nonfacilitation of Youth's Autonomy	.54

Alpha = .68

and attitudes about the training, course and experience. On the basis of principal components/varimax rotation procedures and using Kaiser's criteria, six factors were extracted. The first, Evaluation of Academic Course Learning, contained items reflecting how much the students felt they learned and how the course would affect their future, in terms of going to grad school and getting a job. The second, General Course Evaluation, was composed of such questions as whether they would take the course again or recommend the course to a friend. The third, Evaluation of Didactic Training, had items evaluating the training and intervention models. The fourth, Evaluation of Class Discussion, consisted of items reflecting the usefulness and feeling about class discussion of cases. The fifth, Social Support Received, was composed of items reflecting the amount of time spent talking with other students and friends about the course and cases. The six, Evaluation of Grading Scheme, was a single item dealing with how much the grading scheme of the course was liked (see Table 7 for a complete listing of items on the above factors).

The second portion of the Course (TSI) Evaluation was given only to students in the Hi-Action and Hi-Relationship conditions and was designed to gain feedback from the students about structure and format of the formal training process. The steps used in data reduction were nearly identifical to those used in the first portion of the course evaluation, principal components/varimax rotation and the use of Kaiser's criteria. Four factors were extracted. The rational approach to scaling was then used to move one item (useful

Table 7

Course (TSI) Evaluation - Principal Components Solution

Component	Eigenvalue	Pct of Var	Cum Pct	Variable Name	Eval. of Academic Course Learning Component 1	General Course Evaluation Component 2	Eval. of Didactic Training Component 3	Eval. of Class Discussion Component 4	Social Support Received Component 5	Eval. of Grading Scheme Component 6	Communality
1	6.42	27.9	27.9	1 Take Again	.28	.81*	.24	.14	-.01	-.05	.82
2	2.79	12.1	40.0	2 Recommend	.11	.78	-.14	.16	-.10	.13	.69
3	2.50	10.9	50.9	3 Relevant-Career Goals	.66	.39	.06	-.08	-.16	.30	.71
4	1.89	8.2	59.1	4 Initial Expect.	.08	.70	.22	.14	.07	-.06	.57
5	1.47	6.4	65.5	5 Learned	.75	.21	.09	.11	.10	-.25	.70
6	1.32	5.8	71.3	6 Learned Compared to Others	.72	-.12	.27	.39	-.06	.18	.80
7	.99	4.3	75.6	7 Useful in Future Courses	.73	.06	.29	.14	.26	-.06	.72
8	.85	3.7	79.3	9 Effect-Job	.56	.29	.42	-.12	.01	.22	.65
9	.74	3.2	82.5	10 Effect-Grad. School	.65	.31	.18	-.19	.09	.03	.60
10	.60	2.6	85.1	11 Like Model-Interv.	.13	.44	.71	.01	.04	.08	.72
11	.57	2.5	87.5	12 Like Amt. Training	.24	.09	.78	-.19	.13	-.00	.73
12	.53	2.3	89.8	13 Like Training Presentation	.24	.63	.11	-.03	.16	.31	.58
13	.43	1.9	91.7	14 Talk w/Friends Regard. Training	.41	.04	.11	-.08	.63	-.42	.75
14	.36	1.5	93.3	15 Talk w/Students Regard. Training	-.06	-.10	.07	.03	.85	-.06	.75
15	.32	1.4	94.7	16 Talk w/Friends Regard. Case	.26	.03	.10	-.06	.73	.17	.64
16	.28	1.2	95.9	17 Talk w/Students Regard. Case	-.10	.13	.10	.15	.81	.19	.76
17	.21	.9	96.8	18 Like Grades	.06	.13	.01	.12	.15	.86	.79
18	.19	.8	97.7	19 Like Class Disc-Yours	.12	-.08	-.06	.82	.07	.00	.71
19	.15	.7	98.3	20 Useful Class Disc-Yours	-.02	.16	.27	.81	.03	.07	.76
20	.14	.6	98.9	21 Like Class Disc-Others	-.01	.20	-.09	.66	.07	-.34	.81
21	.11	.5	99.4	22 Useful Class Disc-Others	-.03	.29	.12	.66	-.06	.22	.62
22	.07	.3	99.7	23 Like Role Plays	.17	-.01	.80	.38	.12	.03	.82
23	.06	.3	100.0	24 Useful Role Plays	.31	-.00	.71	.32	.13	-.10	.74

*Underlined component loadings indicate which variables were selected to compose that specific component.

outside readings) to a scale where there was a more logical fit. A high inter-item correlation seemed to justify this decision. The first factor, Evaluation of Assigned Reading, contained items reflecting feelings about and the usefulness of the manual and the outside readings. The second factor, Evaluation of Questions, consisted of items evaluating feelings about and usefulness of written and oral questions. The third factor, Evaluation of Rewriting Questions, was composed of questions about the usefulness of and feelings about rewriting questions students had gotten incorrect during the training period. The fourth factor, Evaluation of Outside Speakers, had items dealing with feelings about and the usefulness of outside speakers who had come to class (for a complete list of items on these four factors refer to Table 8).

The third section of the Course (TSI) Evaluation was composed of a series of open-ended questions and was administered to all experimental students. These items were not submitted to any statistical procedures, but were used anecdotally.

4. Ratings of Supervisors. Students rated each of their two supervisors at three different time periods: Time 2, Time 3, and Time 4. A five point scale was used to measure a number of concepts generated by the project staff in order to assess how students rated their supervisors. Rational empirical scale construction and a principal components analysis of these items resulted in one scale, Supervisor Ratings (15 items, alpha .89) and a singlet. Offer Expert Answers (how often did your supervisor offer "expert" answers rather

Table 8

Course (TSI) Evaluation-Hi-Intensity - Principal Components Solution

Component	Eigenvalue	Pct of Var	Cum Pct	Variable Name	Evaluation of Assigned Readings Component 1	Evaluation of Questions Component 2	Evaluation of Rewriting Questions Component 3	Evaluation of Outside Speakers Component 4	Communality
1	4.61	38.5	38.5	25 Like Manual	.91*	.11	.08	.04	.84
2	2.29	19.1	57.6	26 Useful Manual	.75	.27	.25	.18	.73
3	1.34	11.2	68.8	27 Like Outside Reading	.74	.28	.20	-.27	.74
4	1.13	9.4	78.2	28 Useful Outside Reading	.27	-.04	.73	-.24	.66
5	.62	5.2	83.4	29 Like Oral Questions	.27	.57	.51	.14	.68
6	.59	4.9	88.3	30 Useful Oral Questions	.50	.72	-.24	.17	.86
7	.51	4.3	92.5	31 Like Written Questions	.26	.84	.23	.18	.86
8	.34	2.8	95.3	32 Useful Written Questions	.04	.80	.19	-.23	.74
9	.20	1.7	97.0	33 Like Rewrite	.42	.19	.73	-.04	.74
10	.17	1.4	98.4	34 Useful Rewrite	-.15	.22	.84	-.11	.80
11	.12	1.0	99.4	35 Like Outside Speaker	-.27	-.01	-.13	.89	.88
12	.07	.6	100.0	36 Useful Outside Speaker	.34	.08	-.13	.86	.86

*Underlined component loadings indicate which variables were selected to compose that specific component.

than help you generate your own answers) was retained as a singlet due to its low correlation with other items on the questionnaire (see Table 9 for a complete list of items).

5. Career Goals. Several questions about career and graduate school goals were administered at Time 1 and at Time 4 to experimental students and to controls. Responses to questions regarding graduate school or jobs after college were placed into dichotomous categories. Responses to the type of job desired were coded and categorized according to relevance to human service careers relating to juveniles. After reviewing numerous nonprofessional studies Durlak (1971) reported that many believed that nonprofessionals were more likely to pursue mental health careers after an experience in mental health activities. Yet, Kulik, et al. (1969) reported that sometimes nonprofessionals became disillusioned about their own abilities to help others as a result of program participation. It was the intent of this study to examine how program participation and TSI condition affected future career interests of college students.

6. Self Ratings. At time 2, Time 3, and Time 4 assessments, students in the experimental conditions were asked to rate themselves on a variety of dimensions along a five point, Likert type scale. At the Time 4 assessment controls were asked to complete the items relevant to them (not dependent on their having taken the course). Nonprofessionals have typically shown a significant positive change in their degree of self-acceptance (Holzberg, Gerwitz & Ebner, 1964; Durlak, 1971) as a result of program participation. The differential

Table 9

Ratings of Supervisors - Internal Consistency Analyses

Scale = Supervisor Ratings

Variable		Corrected Item-Total Correlation
1	Helpful	.61
2	Consistent with Approach	.49
3	Concerned Re: Case	.49
4	Knowledge - Delinquency	.63
5	Resourceful Re: Case	.64
6	Involved Re: Case	.53
7	Supportive	.47
8	Comfortable	.57
9	Available	.46
10	Understanding	.69
11	Conscientious	.66
13	Skilled - Group Disc.	.54
14	Talkative	.52
15	Familiar - Comm. Resources	.54
16	Get Along With	.65
	Alpha = .89	
12*	Offer Expert Answers Rather Than Help You Generate Own	

* "Item 12 was retained as a singlet due to a low correlation with other items."

effect of program participation and experimental condition were examined.

Data reduction of the 23 dimensions was accomplished by using extensive principal components analyses with varimax rotation and by examining the very high inter-item correlations. A decision was made to eliminate two items (comfortableness with the approach and intelligence) completely and to combine the remaining 21 items (see Table 10 for a list of items in Self-Rating) into one factor score. An average item score was determined for this measure. Due to the overall high correlation of items, an average item score calculated on the 10 items retained (intelligence was also eliminated here) for the controls was considered to be comparable to the experimental students' score.

7. Semantic Differential Attitude Scale. A Semantic Differential Attitude Scale (Osgood, Suci & Tannenbaum, 1957) measuring attitudes toward a broad range of concepts was administered to all students, experimental and control at Time 1 and Time 4. In addition to these administrations for all students, the experimental groups received these measures two more times, at Time 2 and Time 3. The 24 concepts used (two just for experimentals) covered a variety of categories, such as individuals, systems and institutions and were specifically adapted for this study. Attitude change has been found to occur in different directions depending upon the concept involved, e.g., more positive attitude change toward the target, mental health careers, oneself and one's own ability and more negative

Table 10

Self-Rating - Principal Components Solution

Component	Eigenvalue	Pct of Var	Cum Pct	Variable Name	Component 1	Component 2	Communality
1	11.01	52.4	52.4	1 confident	.81	.30	.75
2	1.86	8.9	61.3	3 agrees w/approach	.35	.49	.36
3	1.52	7.2	68.5	4 effective	.19	.41	.20
4	1.14	5.4	73.9	5 understands model	.79	.29	.71
5	1.07	5.1	79.0	6 talkative	.81	.12	.67
6	.86	4.1	83.1	7 gets along w/youth	.29	.71	.59
7	.55	2.6	85.7	8 gets along w/family	.11	.66	.45
8	.54	2.6	88.3	9 gets along w/school officials	.13	.67	.47
9	.45	2.1	90.5	10 planful	.64	.31	.50
10	.36	1.7	92.2	11 perseverant	.77	.05	.59
11	.32	1.5	93.7	12 resourceful	.58	.23	.39
12	.25	1.2	94.9	14 motivated	.84	.26	.77
13	.22	1.0	95.9	15 successful	.74	.44	.75
14	.20	.9	96.9	16 well-liked by supervisors	.51	.68	.72
15	.16	.7	97.6	17 well-liked by students	.43	.80	.82
16	.14	.7	98.3	18 empathic	.57	.53	.60
17	.12	.6	98.9	19 warm	.63	.58	.73
18	.08	.4	99.3	20 follows through	.10	.75	.58
19	.06	.3	99.5	21 gives input	.86	.31	.83
20	.06	.3	99.8	22 shows interest	.65	.43	.81
21	.04	.2	100.0	23 helpful	.78	.40	.77

change toward institutions and systems of care (Cowen et al., 1966; Rappaport et al., 1971). The differential impact on attitude change of being involved in the Adolescent Diversion Project and of the type of TSI mode provided was examined in order to analyze what components of the overall program led toward helper change.

The twenty-four concepts that were originally used were presented to the students in random order and were each rated along twelve dimensions. In order to reduce the number of items a number of procedures were followed. First, an examination of the endorsement frequency of the twelve dimensions across concepts revealed very low variance on two dimensions (light-heavy and small-large) and these two dimensions were excluded. Second, each set of the remaining dimensions was submitted to a principal components analysis with varimax rotation. Based on these analyses it was clear that a consistent structure had emerged which revealed the presence of two basic components. The first was the classic evaluative component. The dimensions included in this component were pleasant, sharp, good, active, effective, friendly, fast, helpful and strong. The second basic component was the single dimension predictable. The criteria used in making this decision was that this structure appeared consistently from separate component analyses done on the 24 concepts. Due to space limitations, none of the 24 principal component analyses will be presented. The third step was that two component scores were derived for each concept. Scores on the overall evaluative component were created by adding the scores on the top five loaded dimensions.

Fourth, component scores for each of the concepts were grouped into rational scales, retained as singlets or eliminated from further analyses, based on ideas and attitudes that had been researched and found of interest in the past. The component scales formed were Myself-Evaluative (four concepts; alpha .79) and Myself-Predictable (four concepts; alpha .67); Juvenile Justice-Evaluative (three concepts; alpha .79) and Juvenile Justice-Predictable (three concepts; alpha .62); Targets-Evaluative (three concepts; alpha .59) and Targets-Predictable (three concepts; alpha .61); and School-Evaluative (four concepts; alpha .78) and School-Predictable (four concepts; alpha .62). The concepts in each of the scales above reflect the scale label (see Table 11 for a complete list of concepts in each scale). Four concepts--employment programs for youth, human service career, police and diversion--were retained as singlets.

8. Tally of Official Contacts with Supervisors Outside of Class. Supervisors were asked to keep count of how many times and for approximately how many minutes each student contacted them outside of the two hour class to deal with issues related to their assigned youth, class assignments, recommendations, termination reports, etc. These frequencies provided information about when and if supervisors in different conditions were needed by the students. Supervisors were also asked to keep a record of the content of the contact. All of this information allowed for a more accurate estimate of personpower costs and needs in different types of TSI programs, as well as of social support needs not fulfilled by the group leaders

Table 11

Semantic Differential - Internal Consistency Analyses

Concepts	Corrected Item Total Correlation: Evaluative	Predictable
Myself		
Myself	.70	.45
My Effectiveness	.63	.56
College Students	.53	.47
Volunteers	.54	.33
	α = .79	α = .67
Juvenile Justice		
Juvenile Court Staff	.62	.48
Juvenile Justice System	.69	.44
Probation Services	.57	.38
	α = .79	α = .62
Targets		
Adolescents	.45	.52
Juvenile Delinquency	.35	.48
Parents	.42	.28
	α = .59	α = .61
School		
School Counselors	.59	.39
School Principals	.68	.48
School Teachers	.62	.37
School Systems	.51	.39
	α = .78	α = .62

during the class. The contacts were tallied at three points, twice during the project, Times 2 and 3, and at the end, Time 4.

9. Process Interviews. Process interviews were conducted for the overall research project four times during the course of the youth's involvement with the project. This provided a detailed monitoring and understanding of events that occurred in the lives of the youths, important components of the interventions implemented and the training/supervision sessions. The four times were within a few days of assignment to a condition and then at 6, 12 and 18 weeks after assignment. The interviews were held with the target youth, one of his/her parrents and a peer nominated as a close friend during the initial interview. Volunteers were also interviewed during the final three time periods. The interviewers, using about 400 items generated from previous interviews on this project rated what they were told by the individuals and what they observed.

Interviewers were undergraduate students taking part in a three term interviewing and data collection course. They were trained by two graduate students in ecological psychology who had been extensively involved with the project. The training period lasted for approximately one term. Students were oriented to the project and received a general background in interviewing techniques. They were then given the opportunity to perform several practice interviews, at first doing segments of interviews and then conducting entire interviews. They were also trained in coding procedures. Each interviewer was assigned an entire set of interviews--youth,

parent, peer and volunteer. They were naive as to the experimental condition of the youth. One tenth of all interviews were conducted by two interviewers. Overall, inter-interviewer agreement was .83.

Only the last three of the intervention scales, composed of 14 separate scales made up of only a subset of the 400 items rated from the process interviews, were used in this research. The intervention scales came only from the last three sets of interviews, since at the initial interview no interventions had been attempted. Based on previous research with the process data, scales were formed using a rational/empirical scale construction strategy. Items with low inter-item correlations were excluded. Ratings on each of the items used in the three scales for this research (Contracting, nine items, alpha .96; Advocacy, 10 items, alpha .82; and Relationship, seven items, alpha .84) were combined and added across all sources of information. The Contracting scale was composed of items reflecting the extent to which the volunteer utilized behavioral contracting as an option in the intervention. The Advocacy Scale contained items measuring the extent to which the volunteer intervened on behalf of the youth to gain needed resources. The Relationship scale consisted of items evaluating the extent to which the volunteer utilized relationship building as an intervention strategy (see Table 12 for a list of these items).

Table 12

Intervention Scales - Internal Consistency Analyses

Scale = Contracting

Variable		Corrected Item-Total Correlation
761	Specified interpersonal contingencies to alter	.08
762	Specified contract	.94
763	Initiated contract	.95
764	Monitoring system for contract	.95
765	Involved youth and others in contract negotiation	.94
766	Instructing in methods of contracting	.94
767	Youth likes contracting	.85
771	Parent satisfied with and following contract	.87
772	Target satisfied with and following contract	.91

Alpha = .95

Scale = Advocacy

742	Specified changes in environment	.39
743	Specified courses of action	.71
744	Specified individual targets	.37
745	Taken specific action	.74
746	Followed up on change areas	.64
747	Involved youth in planning and action	.40
748	Instructing youth in advocacy	.52
749	Youth likes advocacy	.44
750	Parents like advocacy	.40
770	Takes action to generate new resources	.60

Alpha = .82

Scale = Relationship

753	Talk to youth regarding feelings	.61
754	Talk to youth regarding own feelings	.65
755	Effort to understand feelings, beliefs	.53
756	Give feedback	.56
757	Problem-solving process completed	.61
758	Number of times of problem-solving process	.59
759	Instructing youth in problem-solving	.66

Alpha = .84

CHAPTER III

RESULTS

The analyses of the youth outcome data--school, court and apprehension-police--will be the first portion of the results to be presented. Second, the results of the student data will be detailed. This will include an examination of process-intervention measures, of the TSI experience, including training manipulation checks and project experience evaluations, and interest and attitude measures. The determination of the criteria for target success or failure will be presented and when appropriate, discussion of the relationship between youth outcome data and the student measures will be added.

Ideally, a multivariate analysis of variance should have been performed using and relating all of these measures--youth, student, process and outcome. Unfortunately, the appropriate computer programs were not available at this univeristy or elsewhere, so a large number of univariate tests were performed. Since these tests were done on correlated measures, the interpretation of these results should be done with appropriate caution. In addition, the absence of any follow-up data to date limits the conclusions that can be made.

Youth Outcome

School

Grade point average, attendance and a proportion of credits earned to credits taken were analyzed using a five by six (Hi-Action

versus Hi-Relationship versus Lo-Small versus Lo-Large versus Control by pre-quarter one versus pre-quarter two versus pre-quarter three versus pre-quarter four versus post-quarter one versus post-quarter two) analysis of variance with repeated measures.

Table 13 presents the group mean and a summary of the analysis of variance for grade point average. Only the main effect for time achieved significance. Scheffé-planned comparison analyses were performed in order to determine the extent and nature of the significant findings. (Due to the large number of analyses performed in this study it should be assumed that all Scheffé analyses performed are planned comparisons and that all those reported as significant are at least at the .05 level of significance.) The Hi-Relationship and Lo-Small groups remained stable over time on their grade point average. All other groups had significantly lower grade point averages during the post periods than during the pre periods.

Table 14 reports the summary of the analysis of variance for school attendance and the group means. There is a significant main effect for time. According the Scheffé analysis, Lo-Small, Lo-Large and the Control groups dropped significantly in their rate of attendance during the post periods. The two Hi-Intensity groups, Hi-Action and Hi-Relationship, remained stable over time, in fact increasing slightly for the post period.

The group means for proportion of credits earned to credits taken and the analysis of variance summary are presented in Table 15. There is a significant main effect for time. The two Hi-Intensity

Table 13

Grade Point Average - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	2.30	2.42	2.18	1.93	1.23	1.36
Hi-Relationship	1.19	1.19	1.13	1.28	1.30	1.14
Lo-Small	1.73	1.74	1.56	1.33	1.34	1.32
Lo-Large	1.38	1.20	1.28	1.32	1.07	.45
Controls	1.54	1.50	1.30	1.20	1.01	1.03

Grade Point Average - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	7.06	.94	.45	
Subjects	54	7.50			
Time	5	3.31	5.85	<0.0005	.02
C x T	20	.56	.99	.47	
S x T	270	.57			

Table 14

School Attendance - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	.89	.88	.69	.70	.72	.75
Hi-Relationship	.85	.84	.82	.79	.80	.82
Lo-Small	.83	.79	.74	.72	.69	.68
Lo-Large	.80	.79	.76	.70	.69	.54
Controls	.79	.77	.73	.70	.62	.61

School Attendance - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.17	.43	.78	
Subjects	68	.40			
Time	5	.21	10.65	<0.0005	.03
C x T	20	.03	1.32	.16	
S x T	340	.02			

Table 15

Proportion of Credits Earned to Credits Taken - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	.76	.78	.71	.64	.67	.72
Hi-Relationship	.68	.73	.68	.75	.74	.69
Lo-Small	.80	.80	.70	.56	.64	.64
Lo-Large	.72	.69	.60	.55	.48	.39
Controls	.75	.74	.67	.61	.55	.54

Proportion of Credits Earned to Credits Taken - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.24	.40	.81	
Subjects	54	.60			
Time	5	.28	6.44	<0.0005	.03
C x T	20	.04	.90	.58	
S x T	270	.04			

groups remained stable over time. The mean scores for Lo-Small dropped, but not significantly. Both the Lo-Large and the Control groups had significant decreases, using the Scheffé analysis, between the pre and post periods.

Court

Similar to the school measures, the court data was analyzed using a five by six (condition by time) analysis of variance design. Court data included the number of offenses on court petitions filed and the average seriousness of these offenses averaged across all youth in the TSI condition. Table 16 reports the analysis of variance summary and the group means for the number of offenses on petitions filed. There is a significant main effect for time. All group means went up at pre-quarter four (the quarter before entry to the project) and went down during the post quarters. There were no pre between group differences. During the post quarters, Hi-Action was significantly lower than all the other groups combined on the number of petitions filed. It seems noteworthy that Hi-Action began (at pre-quarter four) as the highest group and Lo-Large began as the lowest and that during the post assessment quarters they switched positions. Furthermore, only the Hi-Action group decreased significantly in the frequency of offenses on court petitions.

Table 17 summarizes the results of the analysis of variance and presents the group means for the court measure of seriousness of offense. There is a significant main effect for time. At pre-quarter

Table 16

Number of Offenses on Court Petitions - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	0	0	0	1.21	0	.21
Hi-Relationship	.08	0	0	1.00	.33	0
Lo-Small	0	0	0	1.06	.06	.26
Lo-Large	0	0	0	.94	.25	.44
Controls	0	.06	0	1.06	.06	.31

Number of Offenses on Court Petitions - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.03	.14	.97	
Subjects	68	.21			
Time	5	12.05	65.60	<0.0005	.42
C x T	20	.16	.89	.60	
S x T	340	.18			

Table 17

Seriousness of Offenses-Court - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	0	0	0	2.57	0	.19
Hi-Relationship	.25	0	0	2.13	.23	0
Lo-Small	0	0	0	2.23	.20	.33
Lo-Large	0	0	0	2.17	.56	.44
Controls	0	.12	0	1.94	.06	.50

Seriousness of Offenses-Court - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.12	.41	.80	
Subjects	68	.29			
Time	5	53.45	140.03	<0.0005	.62
C x T	20	.43	1.13	.32	
S x T	340	.38			

four Hi-Action was significantly higher than Hi-Relationship and the Control groups. Yet, during the post quarters Lo-Large was significantly higher than either Hi-Action or Hi-Relationship and in fact, as with the number of petitions, Hi-Action began as the highest group (most serious) and ended as the lowest (least serious). In a further Scheffé analysis, comparison of the seriousness of offenses of both of the Hi-Intensity groups versus the two Lo-Intensity plus the Control groups revealed that the Hi-Intensity groups were significantly lower than the other three groups.

Apprehension-Police.

Record data attained from apprehension-police contacts was also analyzed using a five by six (condition by time) analysis of variance design. Table 18 presents the group means and the analysis of variance summary for number of offenses revealed by apprehension-police data. A significant time effect is observed. All group means went up significantly at pre-quarter four and then down significantly during the post quarters. There were no pre or post between group differences. Relatively speaking Hi-Action began with the highest number of offenses and ended in a middle position. The Control group began almost at the bottom and finished as the lowest.

Table 19 summarizes the analysis of variance for seriousness of offenses and also depicts the group means. There is a significant main effect for time. All groups went up significantly during the fourth quarter pre-period and Hi-Action and Lo-Small went down

Table 18

Number of Offenses on Apprehension-Police Outcome - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	.07	0	.36	1.14	.36	.07
Hi-Relationship	0	.08	.08	.83	.58	0
Lo-Small	.06	.06	.06	1.07	.20	.06
Lo-Large	.06	0	.25	.81	.31	.37
Controls	.12	0	0	.88	.06	.12

Number of Offenses on Apprehension-Police Outcome - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.23	.41	.80	
Subjects	68	.56			
Time	5	8.55	23.56	<0.0005	.19
C x T	20	.26	.72	.81	
S x T	340	.36			

Table 19

Seriousness of Offenses--Apprehension-Police Outcome - Group Means

	Time Intervals					
	Four Quarters Pre				Two Quarters Post	
Condition	1	2	3	4	5	6
Hi-Action	.07	0	.5	2.18	.2	.2
Hi-Relationship	0	.25	.16	1.4	.32	0
Lo-Small	.20	.20	.13	2.23	.40	.13
Lo-Large	.19	0	.44	1.72	.39	.40
Controls	.19	0	0	1.62	.06	.19

Seriousness of Offenses--Apprehension-Police Outcome - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	4	.89	1.53	.20	
Subjects	68	.58			
Time	5	32.89	52.09	<0.0005	.37
C x T	20	.52	.82	.69	
S x T	340	.63			

significantly during the post quarters. At pre-quarter four Hi-Action and Lo-Small were significantly higher than Hi-Relationship and Control groups. There were no significant between group differences at post. Again, the Controls began as the least serious and ended as the least serious.

Summary of Outcome Data

A brief summary of each of the main portions of the results section will be provided in order to help synthesize and integrate the many analyses and findings discussed. Overall, during the post quarters, the five groups did worse at school and did better in terms of official recidivism-court and apprehension-police data. More specifically, the results of the outcome data, particularly on the basis of the school and court data, indicate that the two Hi-Intensity groups, Hi-Action and Hi-Relationship, were not different from each other and did better over time (by remaining more stable on school data and dropping most on delinquency data) than the two Lo-Intensity groups, Lo-Small and Lo-Large, plus the Control group. Of the three latter groups, the Lo-Small group did better on the school and court findings and the Controls did better (but started better) on the apprehension-police data.

Student Measures

Determination of Success-Failure of Targets

In order to examine the relationship of student measures to target outcome it was necessary to establish success-failure categories

for the youth. It was decided to use the official delinquency data--apprehension-police and court contacts--from the post period to determine who was or was not a failure. All of the youth who had either an apprehension-police contact and/or a court contact during the post period (date assigned to the project through date terminated) were considered failures. This combined criteria of apprehension-police and court findings resulted in the following group membership distribution to be used for the student measure analyses: Hi-Action Successes N = 12, Hi-Action Failures N = 2; Hi-Relationship Successes N = 10, Hi-Relationship Failures N = 2; Lo-Small Successes N = 11, Lo-Small Failures N = 3; Lo-Large Successes N = 10, and Lo-Large Failures N = 5. The relationship of success-failure to the student measures, as well as a discussion of all of the analyses of student measures will be done in three subsections. The first discusses the process-intervention measures. The second deals with measures having to do with the TSI experience; the third presents interest and attitude measures.

Process-Intervention Measures

The Tally of Outside Contacts to Supervisors was analyzed using a four by three (condition by time--Time 2 versus Time 3 versus Time 4) analysis of variance design and a four by three by two (condition by time by success-failure) design. Since success-failure distinctions were found, the latter analysis will be used. The summary of analysis of variance for Total Minutes of Contact derived

from the overall tally kept by supervisors is presented in Table 20. Group means are also presented in this table. Significant main effects for condition, time and the significant interactions of condition and time, time and success-failure, and condition, time and success-failure are observed. Lo-Large and Lo-Small groups increased significantly over time on the amount of time they talked to their supervisors outside of class, the Hi-Intensity groups did not. Failures, particularly during the second term (tallied at Time 3) when everyone was assigned and working with a youth, contacted their supervisors much more frequently than successes did. During the third and final term, when many of the student-youth relationships had ended and many of the contacts to supervisors were mainly regarding termination reports (supervisors were asked to keep note of the content of the contact), successes contacted them more frequently. The Total Number of Contacts, also analyzed in the same manner as Total Minutes, provided the same conclusions as the above measure and will not be repeated.

The three process-intervention scales were analyzed using four by three (condition by time--six weeks versus twelve weeks versus eighteen weeks) and four by three by two (condition by time by success-failure) analysis of variance designs. Since the success-failure independent variable provided some additional information for understanding the groups, the latter analyses will be presented in this section. Table 21 presents the group means and the analysis of variance summary for the Contracting scale. Significant

Table 20

Tally of Outside Contacts to Supervisors-Total Minutes - Group Means

Condition	Outcome	Time 2	Time 3	Time 4
Hi-Action	Success	5.75	11.83	4.33
	Failure	16.50	31.00	12.00
Hi-Relationship	Success	20.80	6.80	3.10
	Failure	6.50	16.00	2.00
Lo-Small	Success	3.73	26.18	47.82
	Failure	6.67	117.67	22.67
Lo-Large	Success	12.10	31.20	60.00
	Failure	17.00	45.00	42.00

Tally of Outside Contacts to Supervisors-Total Minutes - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition (A)	3	5198.54	5.53	.002	.07
Failure/Success (B)	1	1795.13	1.91	.17	
A x B	3	857.84	.91	.44	
Subjects (C)	47	940.31			
Time (D)	2	5075.00	7.40	.001	.05
A x D	6	2617.36	3.82	.002	.07
B x D	2	4140.13	6.04	.003	.04
A x B x D	6	1519.91	2.22	.048	.03
C x D	94	685.41			

Table 21

Intervention Survey-Contracting Scale - Group Means

Condition	Outcome	6 Weeks	12 Weeks	18 Weeks
Hi-Action	Success	2.02	2.09	1.81
	Failure	2.67	3.28	4.56
Hi-Relationship	Success	1.28	1.26	1.25
	Failure	1.22	1.22	1.22
Lo-Small	Success	1.37	1.28	1.29
	Failure	1.33	1.24	2.22
Lo-Large	Success	1.30	1.25	1.25
	Failure	1.23	1.29	1.33

Intervention Survey-Contracting Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition (A)	3	11.7	11.56	<0.0005	.28
Failure/Success (B)	1	4.55	4.49	.04	.03
A x B	3	3.12	3.08	.04	.05
Subjects (C)	46	1.02			
Time (D)	2	.86	8.84	<0.0005	.01
A x D	6	.35	3.58	.003	.01
B x D	2	1.42	14.54	<0.0005	.02
A x B x D	6	.50	5.12	<0.0005	.02
C x D	92	.01			

main effects of time, condition, success-failure and significant interactions of condition and success-failure, condition and time, success-failure and time, condition, success-failure and time are observed. Hi-Action was significantly higher than the other three conditions on the Contracting scale at all three time periods. Within the Hi-Action group, failures were not significantly different than successes at the 6 week and 12 week assessment, but at the 18 week assessment period they were significantly higher (did more contracting) than successes did. It was also noted that Lo-Small failures went up significantly over time and the Hi-Relationship scores were consistently the lowest.

Table 22 presents the group means and the summary of the analysis of variance for the Advocacy scale. A significant condition effect is noted. Hi-Action again scored highest on this scale and was significnatly higher than all of the other groups at all time periods.

Table 23 presents the summary of the analysis of variance and the group means for the Relationship scale of the process-intervention measures. A significant time effect is noted. There were no significant between group differences. Overall every group went up significantly (did more relationship activities) over time.

There are several conclusions that can be drawn from the process-intervention measures. First, Lo-Intensity students relied on their supervisors outside of class much more than the Hi-Intensity students. Second, failures tended to contact their supervisors more

Table 22

Intervention Survey-Advocacy Scale - Group Means

Condition	Outcome	6 Weeks	12 Weeks	18 Weeks
Hi-Action	Success	2.67	2.43	2.67
	Failure	3.02	3.65	3.35
Hi-Relationship	Success	1.73	1.72	1.64
	Failure	1.76	1.25	1.68
Lo-Small	Success	2.09	2.05	1.94
	Failure	1.90	2.35	2.22
Lo-Large	Success	1.86	1.70	1.72
	Failure	2.19	2.05	2.19

Intervention Survey-Advocacy Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition (A)	3	7.50	4.38	.009	.13
Failure/Success (B)	1	1.83	1.07	.31	
A x B	3	.82	.48	.70	
Subjects (C)	46	1.71			
Time (D)	2	.006	.02	.98	
A x D	6	.12	.47	.83	
B x D	2	.13	.54	.59	
A x B x D	6	.19	.76	.60	
C x D	92	.25			

Table 23

Intervention Survey-Relationship Scale - Group Means

Condition	Outcome	6 Weeks	12 Weeks	18 Weeks
Hi-Action	Success	2.79	2.91	2.97
	Failure	2.64	3.00	2.93
Hi-Relationship	Success	2.41	2.58	2.83
	Failure	2.14	2.21	2.50
Lo-Small	Success	2.22	2.47	2.60
	Failure	2.50	2.42	2.84
Lo-Large	Success	2.27	2.49	2.76
	Failure	2.79	2.80	2.91

Intervention Survey-Relationship Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition (A)	3	.84	.50	.68	
Failure/Success (B)	1	.02	.01	.91	
A x B	3	.45	.27	.85	
Subjects (C)	46	.17			
Time (D)	2	.80	6.09	.003	.01
A x D	6	.32	.24	.96	
B x D	2	.22	.17	.85	
A x B x D	6	.46	.35	.91	
C x D	92	.13			

often than successes when they were working with their youths. Third, the Contracting and Advocacy scales revealed that the Hi-Action students did engage in many more of the specific skill activities that they were trained in than did any of the other groups. The Hi-Relationship group, which was instructed not to get directly involved with significant others in the youth's life, appeared to have worked within the intervention model. Finally, Relationship activities, e.g., talking about one's own and the youth's feelings, were a general characteristic of what all groups, no matter what their training, seemed to do. This will be commented upon more in depth in the Discussion section.

Course (TSI) Experience

The two scales of the Training Test, Action and Relationship and the scale and singlet (Supervisor Ratings and Offer Expert Answers) on the Ratings of Supervisor measure were viewed primarily as checks of the training manipulation. On the Training Test scales the four experimental groups were compared in two different ways. First, a four by two (condition by time--Time 2 versus Time 4) analysis of variance was used. Second, a four by two by two (condition by time by success-failure) analysis of variance design was used. None of the analyses which included the success-failure distinction showed significant effects for success-failure, so this section will detail only the analyses of the four by two design. One further analysis--a one way analysis of variance for the Time 4 scores of all five

conditions (including Controls) was performed and the results will be included in the discussion of the four by two.

Table 24 presents a summary of the analysis of variance and the group means for the Action scale. Table 25 presents the summary of the analysis of variance and the group means for the Relationship scale. A main effect for condition is noted on the Action scale. As measured by Scheffé analyses, the Hi-Action group was significantly higher than the other three groups, which were not different from each other or from the control group. All of the group means dropped over time, except for the Hi-Relationship group which had scores that increased over time. The main effect of condition is also significant on the Relationship Scale. In addition, the time effect is significant. The Hi-Relationship group scored significantly higher than the other three experimental groups and the control group. Overall, there was a decrease in scores attained over time. One may conclude that a volunteer is more likely to have knowledge (as measured by a high score) in these two specific skill and intervention areas if detailed, intensive training in these areas is provided. As a training manipulation check it appears that the Hi-Intensity groups learned and retained much of the information that they were supposed to. Furthermore, not receiving the specific training but participating in the general project and intervention experience did not give a volunteer more knowledge in these areas than a student not involved.

The Ratings of Supervisor measure was analyzed in two ways--a four by three (condition by time--Time 2 versus Time 3 versus Time

Table 24

Training Test - Action Scale - Group Means

Condition	Time 2	Time 4
Hi-Action	11.71	10.36
Hi-Relationship	5.58	6.58
Lo-Small	5.93	5.43
Lo-Large	6.53	6.13
Controls		6.10

Training Test - Action Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	175.97	24.35	<0.0005	.48
Subjects	51	7.23			
Time	1	3.64	.6	.5	
C x T	3	6.07	2.26	.09	
S x T	51	2.69			

Table 25

Training Test - Relationship Scale - Group Means

Condition	Time 2	Time 4
Hi-Action	6.79	5.93
Hi-Relationship	9.00	8.08
Lo-Small	5.14	4.36
Lo-Large	5.00	4.80
Controls		5.43

Training Test - Relationship Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	79.53	13.31	<0.0005	.33
Subjects	51	5.98			
Time	1	12.45	15.82	.03	.01
C x T	3	.79	.41	.75	
S x T	51	1.94			

4) analysis of variance design and a four by three by two (condition by time by success-failure) design. Since the four by three by two design did not produce additional conclusions about the independent variable of success-failure, the four by three design will be used to present the findings. The four experimental groups do not differ on the main Supervisor Ratings scale. Thus, the overall personality and style of the supervisors and the type of interactions they had with students, etc. did not appear to be different. The supervisors did, however, differ significantly on the Offer Expert Answers scale (the rate at which the students thought the supervisors provided "expert" solutions rather than helping students generate their own). Table 26 includes the summary of the analysis of variance and the group means. A significant main effect for condition is observed. There was an overall trend for the Hi-Relationship group to see their supervisors as providing fewer expert answers and for the Hi-Action group to see supervisors as providing more expert answers. This finding may reflect the supervision philosophy of the Hi-Relationship group which was to have students talk about their own feelings and experiences as well as the youths' and to come up with solutions unique to their situation. The Hi-Action supervisors had a much more specific set of skills and techniques that they wanted their students to employ.

The six scales of the Course (TSI) Evaluation measure given to all experimental students were analyzed using both the four by two (condition by time) and the four by two by two (condition by time

Table 26

Ratings of Supervisors: Offer Expert Answers - Group Means

Condition	Time 2	Time 3	Time 4
Hi-Action	3.04	2.96	2.96
Hi-Relationship	2.00	2.08	2.58
Lo-Small	3.21	3.21	2.89
Lo-Large	2.20	2.73	2.67

Ratings of Supervisors: Offer Expert Answers - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	6.60	2.89	.04	.07
Subjects	51	2.27			
Time	2	.41	.95	.38	
C x T	6	.85	1.96	.08	.01
S x T	102	.43			

by success-failure) analysis of variance designs. None of the analyses using the outcome criteria had significant Fs on this independent variable, so the four by two design will be used to describe the findings. The four scales of the Course (TSI) Evaluation given only to Hi-Intensity students were analyzed using a two by two (condition--Hi-Action versus Hi-Relationship--by time--Time 2 versus Time 4) analysis of variance design and a two by two by two (condition by time by success-failure) design. Only the first of the four principal components, Evaluation of Assigned Readings, reached significance and it did so only when the two by two by two design was used. The results of this analysis will be discussed below.

The summary of the analysis of variance and the group means for the Evaluation of Academic Course Learning scale are presented in Table 27. A significant main effect for condition is observed. There were not any significant differences between groups at Time 2 but by the Time 4 assessment (end of project) Hi-Action, which remained stable over time, was significantly higher than Lo-Large, which dropped over time. As well, Hi-Action and Lo-Small combined were significantly higher than Hi-Relationship and Lo-Large.

Table 28 contains the summarized analysis of variance findings and the group means for the General Course Evaluation scale. A main effect for time is significant. As with the Evaluation of Academic Course Learning scale Hi-Action remained stable over time. Hi-Relationship, Lo-Small and Lo-Large dropped.

Table 27

Course (TSI) Evaluation: Evaluation of Academic Course Learning Scale - Group Means

Condition	Time 2	Time 4
Hi-Action	4.08	4.07
Hi-Relationship	3.92	3.65
Lo-Small	3.88	3.92
Lo-Large	3.65	3.39

Course (TSI) Evaluation: Evaluation of Academic Course Learning Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	1.57	2.82	.05	.07
Subjects	51	.56			
Time	1	.42	2.42	.13	
C x T	3	.18	1.00	.40	
S x T	51	.18			

Table 28

Course (TSI) Evaluation: General Course Evaluation Scale - Group Means

Condition	Time 2	Time 4
Hi-Action	3.87	3.89
Hi-Relationship	3.91	3.58
Lo-Small	4.19	3.85
Lo-Large	4.18	3.83

Course (TSI) Evaluation: General Course Evaluation Scale - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	.43	.53	.66	
Subjects	51	.80			
Time	1	1.72	5.12	.03	.02
C x T	3	.22	.67	.58	
S x T	51	.34			

The group means and the summary of the analysis of variance for the Evaluation of Didactic Training scale are presented in Table 29. A main effect for condition is indicated. A comparison of the two Hi-Intensity groups with the two Lo-Intensity groups at both the Time 2 and Time 4 assessments yielded significant differences. Hi-Intensity groups scored significantly higher on how they liked and how useful they found their training.

The group means and the analysis of variance summary for the Evaluation of Class Discussion scale are summarized in Table 30. Main effects for time and condition are significant. Hi-Relationship, which began next to last, dropped the most over time and ended last and was the only group to drop significantly. At the Time 4 period the Hi-Relationship and Lo-Large groups combined were significantly lower than the Hi-Action and Lo-Small groups. Thus, by the end of the project Hi-Relationship and Lo-Large students seemed to both find the class discussions about cases less useful and liked them less.

Table 31 presents the analysis of variance summary and the group means for the Social Support Received scale. A significant main effect for condition is observed. At both Time 2 and Time 4 assessments, the two Hi-Intensity groups combined were significantly higher than Lo-Intensity groups. Lo-Large increased significantly over time but still retained the lowest score. A Hi-Intensity training/supervision experience with weekly meetings seemed to provide the basis for more social support within the class and outside. Small classes also seemed to promote more social support. Perhaps

Table 29

Course (TSI) Evaluation: Evaluation of Didactic Training - Group Means

Condition	Time 2	Time 4
Hi-Action	3.66	3.89
Hi-Relationship	3.83	3.50
Lo-Small	3.29	3.07
Lo-Large	3.00	2.57

Course (TSI) Evaluation: Evaluation of Didactic Training - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	5.97	8.21	<.005	.22
Subjects	51	.73			
Time	1	.96	3.34	.07	
C x T	3	.61	2.12	.11	.01
S x T	51	.29			

Table 30

Course (TSI) Evaluation: Evaluation of Class Discussion - Group Means

Condition	Time 2	Time 4
Hi-Action	4.75	4.38
Hi-Relationship	4.40	3.92
Lo-Small	4.66	4.43
Lo-Large	4.38	4.12

Course (TSI) Evaluation: Evaluation of Class Discussion - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	1.13	2.70	.05	.05
Subjects	51	.42			
Time	1	3.03	11.22	.02	.07
C x T	3	.08	.30	.82	
S x T	51	.27			

Table 31

Course (TSI) Evaluation: Social Support Received - Group Means

Condition	Time 2	Time 4
Hi-Action	3.16	3.43
Hi-Relationship	2.94	2.81
Lo-Small	2.50	2.61
Lo-Large	2.06	2.52

Course (TSI) Evaluation: Social Support Received - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	5.35	6.80	.001	.18
Subjects	51	.79			
Time	1	1.00	2.99	.09	
C x T	3	.40	1.20	.33	
S x T	51	.34			

the increase in Lo-Large over time is accounted for by the fact that Lo-Large students got to know each other better over time and could then get more support from each other.

The group means and the analysis of variance table for the Evaluation of Grading Scheme scale are presented in Table 32. A significant interaction of condition and time is observed. There were not any significant between group differences at either Time 2 or Time 4 assessments. However, at Time 4 Hi-Relationship and Lo-Small liked the grading scheme less and Hi-Action and Lo-Large liked it more.

The summary of the analysis of variance for the Evaluation of Assigned Readings scale is presented in Table 33, as are the group means. Using the two by two by two design, a significant time and success-failure interaction is observed. Overall, successes tended to go down, while failures, who started lower than successes, ended higher. This finding may be accounted for by the failures being reactive to the problems of their youths and referring to the readings to help them decide how to proceed with a solution.

Conclusions about the TSI experience, as measured by the Training Test, Ratings of Supervisors and Course (TSI) Evaluation, will be presented in some detail in the Discussion section. At this point some brief observations and conclusions will be noted. The Hi-Intensity groups did learn and retain the concepts and skills specifically taught to them. Groups that did not receive the intensive training in the area reflected by the scale items did not

Table 32

Course (TSI) Evaluation: Evaluation of Grading Scheme - Group Means

Condition	Time 2	Time 4
Hi-Action	3.79	4.29
Hi-Relationship	4.42	3.83
Lo-Small	4.14	3.71
Lo-Large	4.27	4.47

Course (TSI) Evaluation: Evaluation of Grading Scheme - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	1.02	.67	.58	
Subjects	51	1.53			
Time	1	.08	.15	.70	
C x T	3	1.77	3.32	.03	.03
S x T	51	.53			

Table 33

Course (TSI) Evaluation-Hi-Intensity - Evaluation of Assigned Readings - Group Means

Condition	Outcome	Time 2	Time 4
Hi- Action	Success	3.58	3.42
	Failure	3.25	3.75
Hi-Relationship	Success	3.80	3.55
	Failure	3.50	3.88

Course (TSI) Evaluation-Hi-Intensity - Evaluation of Assigned Readings - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition (A)	1	.22	.23	.64	
Failure/Success (B)	1	0	0	.99	
A x B	1	0	0	.99	
Subjects (C)	22	.96			
Time (D)	1	.09	.55	.47	
A x D	1	.02	.11	.74	
B x D	1	.70	4.39	.05	.02
A x B x D	1	.73	.01	.95	
C x D	22	.16			

reach the same mastery level. Overall, group supervisors were not perceived as different from condition to condition. The only difference came in the way they responded to problem-solving, for Hi-Action supervisors appeared more directive than those in either Lo-Intensity groups and especially than those in the Hi-Relationship groups. In general the Hi-Action and Lo-Small groups changed less over time in the way they evaluated the TSI learning and general experience. Lo-Large and Hi-Relationship seemed to change the most (negatively) in their evaluation. Hi-Intensity groups both evaluated their training experience more favorably than the Lo-Intensity groups and both received more social support from their classmates and friends. The Hi-Relationship group did not like or find useful the class discussions of the cases, particularly by the end of the project. Finally, within the Hi-Intensity groups failures used and liked the outside readings more than the successes at the Post period.

Interest and Attitude Measures

Answers to the three questions on Career Goals (the volunteer's intention to get a job right after graduation or to go to graduate school and the type of job ultimately desired) were coded, placed into appropriate categories and analyzed using chi-square analyses. No statistical differences were found between groups at either Time 1 or Time 4.

The Self-Rating measure was analyzed using a one way analysis of a variance at Time 4 with all five conditions and by means of a four

by three (condition by time--Time 2 versus Time 3 versus Time 4) and four by three by two (condition by time by success-failure) analysis of variance designs. The one way analysis of variance revealed no significant differences between groups at Time 4. The analysis using success-failure did not reveal a significant relationship between this independent variable and the student measure, so only the four by two results will be discussed. Table 34 presents the summary of the analysis of variance for the Self-Rating scale, as well as the group means. A significant main effect for time and a marginally significant interaction of time and condition are observed. There were no between group differences. All groups went up at the Time 3 assessment and, except for Lo-Small which went up significantly at Time 4, all others returned to about where they started. This time effect, going up and then back down may account somewhat for the lack of differences between the experimental groups and the Controls at Time 4. This issue will be discussed in detail in the next chapter.

The 20 scales (ten Evaluative and ten Predictable) of the Semantic Differential Attitude scale were analyzed in several ways. A five by two (condition by time--Time 1 versus Time 4) analysis of variance design was used for the 16 scales relevant to all groups; a four by four (condition by time--Time 1, Time 2, Time 3, Time 4) design was also used for these 16 scales and a four by three (condition by time--Time 2 versus Time 3 versus Time 4) design for the remaining four. In addition, a four by four by two (condition by

Table 34

Self-Rating Factor - Group Means

Condition	Time 2	Time 3	Time 4
Hi-Action	4.07	4.19	4.08
Hi-Relationship	3.89	4.14	4.00
Lo-Small	3.70	3.77	4.11
Lo-Large	3.72	3.85	3.76
Controls			3.81

Self-Rating Factor - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	.96	1.76	.17	
Subjects	51	.54			
Time	2	.38	3.84	.03	.02
C x T	6	.21	2.13	.06	.02
S x T	102	.10			

time by success-failure) and four by three by two (condition by time by success-failure) designs were used. None of the analyses including the success-failure criteria showed a significant F on this independent variable above what was expected by chance. In addition, analyses of the Predictable components for each of the 10 concepts did not reveal significant results above what was expected by chance alone. As a result, this section will detail the analyses using the four by four and the four by three designs on the Evaluative scales and when appropriate will include comments about the five by two (which includes the control group) analyses. Scheffé-planned comparison analyses did not reveal any significant between group differences at Time 1 on any of the 10 scales.

A summary of the analysis of variance for the Myself-Evaluative scale is presented in Table 35 as are the group means. A significant main effect for time is observed and a marginally significant interaction, condition by time. The Lo-Intensity groups declined significantly, while the Control, Hi-Action and Hi-Relationship groups remained relatively stable. As well, there was a tendency at Time 2, Time 3 and Time 4 assessments for the combination of the scores of the Hi-Intensity groups to be higher than those of the Lo-Intensity groups, thereby indicating that the Hi-Intensity groups had a more positive attitude about themselves.

Table 36 contains a summary of the analysis of variance and presents the group means for the Juvenile Justice-Evaluative scale. A significant time effect is observed and explained by the fact that

Table 35

Semantic Differential: Myself-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	6.03	5.91	6.05	5.83
Hi-Relationship	5.95	5.85	5.70	5.71
Lo-Small	5.94	5.08	5.40	5.29
Lo-Large	5.90	5.76	5.63	5.50
Controls	5.93			5.82

Semantic Differential: Myself-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	2.76	2.35	.08	.04
Subjects	51	1.17			
Time	3	1.48	6.89	.0005	.03
C x T	9	.38	1.77	.08	.01
S x T	153	.21			

Table 36

Semantic Differential: Juvenile Justice System-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	4.54	4.26	4.01	4.03
Hi-Relationship	4.62	4.43	4.47	4.45
Lo-Small	4.54	4.18	4.42	4.50
Lo-Large	4.59	4.12	4.15	4.22
Controls	4.44			4.03

Semantic Differential: Juvenile Justice System-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	.89	.40	.75	
Subjects	51	2.25			
Time	3	1.32	4.22	.007	.02
C x T	9	.22	.70	.71	
S x T	53	.31			

all groups ended lower than they started (significantly lower for the Hi-Action and Lo-Large groups). The Control group also dropped significantly.

Table 37 presents the analysis of variance summary and the group means for the School-Evaluative scale. A main effect for time is observed. The biggest decline in group means came at the Time 2 assessment period. The trend was for all experimental groups to go down, while the Control group remained at the same level. Hi-Action, Lo-Small and Lo-Large groups dropped significantly. In addition, when the four experimental groups were compared to the Controls at Time 4 they were significantly lower than the Controls.

The summary of the analysis of variance and the group means for the Target-Evaluative scale are presented in Table 38. A marginally significant main effect for condition is observed. A marginal interaction of condition and time should also be noted. The Hi-Action group increased significantly. The Hi-Relationship and the Control group remained about the same. Lo-Small and Lo-Large dropped (particularly at Time 2). Overall, there was a trend for the two Hi-Intensity groups to be more positive than the two Lo-Intensity groups in the way they rated the targets.

Table 39 presents the summary of the analysis of variance and the group means for the Police-Evaluative scale. A significant main effect for time is noted. All groups (except for Hi-Action) including the Control group dropped significantly at some point over time. The

Table 37

Semantic Differential: School-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	5.43	4.82	4.85	4.84
Hi-Relationship	5.20	4.96	4.90	4.88
Lo-Small	5.30	4.53	4.73	4.60
Lo-Large	5.21	4.72	4.54	4.39
Controls	5.18			5.06

Semantic Differential: School-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	1.07	.62	.61	
Subjects	51	1.72			
Time	3	4.49	21.50	<.005	.09
C x T	9	.21	1.02	.43	
S x T	51	.21			

Table 38

Semantic Differential: Target-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	4.73	5.01	5.21	5.22
Hi-Relationship	4.81	4.96	4.86	4.90
Lo-Small	4.75	4.48	4.66	4.66
Lo-Large	4.70	4.46	4.57	4.56
Controls	4.61			4.59

Semantic Differential: Target-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	2.64	2.65	.06	.05
Subjects	51	1.00			
Time	3	.18	.94	.42	
C x T	9	.32	1.73	.09	.01
S x T	153	.19			

Table 39

Semantic Differential: Police-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	5.40	5.40	5.01	5.22
Hi-Relationship	5.72	5.33	4.98	5.17
Lo-Small	5.21	4.40	4.96	4.97
Lo-Large	5.39	4.81	4.91	4.83
Controls	5.59			4.81

Semantic Differential: Police-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	2.80	1.11	.35	
Subjects	51	2.52			
Time	3	2.62	6.77	<.0005	.03
C x T	9	.52	1.35	.22	
S x T	153	.39			

biggest drop for the Lo-Intensity groups was at the Time 2 assessment; the biggest drop for Hi-Intensity groups was at the Time 3 period.

The summary of the analysis of variance summary and the group means for the Diversion-Evaluative scale are presented in Table 40. A significant main effect for condition is observed. Hi-Intensity groups increased over time while the Lo-Intensity groups decreased. By Time 3 the Hi-Action group was significantly higher (that is more positive about diversion), than the four other groups combined.

Table 41 reveals the analysis of variance summary and the group means for the Human Service Career-Evaluative scale. A significant main effect for time is noted. All groups (except for Hi-Action) including the Control group liked human service careers significantly less over time.

The analysis of variance summary and the groups means for the Employment Programs for Youth-Evaluative scale are presented in Table 42. A significant main effect for time is observed. Lo-Small dropped significantly from Time 1 to Time 4. Lo-Large and Hi-Relationship groups also tended to go down. The Hi-Action and Control groups tended to go up, but not significantly.

Analyses of the Psych 370-400-490-Evaluative scale and the Supervisors-Evaluative scale, the two concepts given only to the four experimental groups during the last three assessment periods, did not reveal any significant differences.

A brief summary of the findings on the interest and attitude measures will be presented below. First, on the Self-Rating measure,

Table 40

Semantic Differential: Diversion-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	5.86	6.04	6.00	6.15
Hi-Relationship	5.05	5.72	5.58	5.42
Lo-Small	5.44	5.19	5.36	5.03
Lo-Large	5.64	5.77	5.09	4.89
Controls	5.88			5.46

Semantic Differential: Diversion-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	6.56	4.09	.01	.07
Subjects	51	1.60			
Time	3	.92	1.27	.12	
C x T	9	1.15	1.59	.12	
S x T	153	.73			

Table 41

Semantic Differential: Human Service Career-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	6.16	5.74	6.03	5.93
Hi-Relationship	6.30	5.90	5.65	5.72
Lo-Small	6.17	5.42	5.33	5.13
Lo-Large	6.12	5.59	5.39	5.05
Controls	6.22			5.80

Semantic Differential: Human Service Career-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	3.05	1.57	.21	
Subjects	51	1.94			
Time	3	5.72	13.29	<.0005	.08
C x T	9	.54	1.26	.26	
S x T	153	.43			

Table 42

Semantic Differential: Employment Programs for Youth-Evaluative - Group Means

Condition	Time 1	Time 2	Time 3	Time 4
Hi-Action	4.96	4.70	4.71	5.20
Hi-Relationship	5.28	4.72	4.82	4.73
Lo-Small	5.47	4.60	4.76	4.70
Lo-Large	5.19	4.67	4.76	4.79
Controls	4.79			5.15

Semantic Differential: Employment Programs for Youth-Evaluative - Analysis of Variance

Source	Df	MS	F	Prob.	ω^2
Condition	3	.02	.01	1.00	
Subjects	51	3.03			
Time	3	3.23	4.39	.005	.03
C x T	9	.48	.65	.76	
S x T	153	.74			

students tended to rate themselves higher at Time 3 than at Time 2, but went down to the original level at Time 4. Second, on the Myself-Evaluative scale of the Semantic Differential there was a trend for the Hi-Intensity groups combined to be higher than the two Lo-Intensity groups combined. Third, on the scales of the Semantic Differential that dealt with systems that students had to interact and hassle with, a number of interesting findings emerged. On the Juvenile Justice-Evaluative scale and the Police Evaluative scale all of the groups, including the Control group, decreased. Due to this overall drop, one may conclude that attitude change on these two scales was not a result of the project experience. On the School-Evaluative scale the attitudes of the Controls remained stable, those of the Hi-Relationship group dropped nonsignificantly and those of the three other groups dropped significantly. Fourth, the two scales, Diversion-Evaluative and Employment Programs for Youths-Evaluative, which seem to measure attitudes about systems of a less institutionalized nature, also differentiated the groups. On the first, the Lo-Large group decreased significantly, the Controls and Lo-Small group decreased nonsignificantly, while the Hi-Intensity groups increased nonsignificantly. The Hi-Intensity students seemed to have a more positive attitude about the type of program they were participating in than the Lo-Intensity students. On the second scale, the Control and Hi-Action students became more positive, while the Hi-Relationship and two Lo-Intensity groups became more negative in their attitudes concerning employment programs for youths. Fifth, the

groups differed in the way they rated the target groups. On the Target-Evaluative scale the groups appeared to form a continuum. Hi-Action increased significantly, Hi-Relationship and the Controls remained the same and the Lo-Intensity groups decreased in their attitudes toward the targets. Sixth, scores on the Human Service Career-Evaluative scale revealed differences between the groups. All of the groups (except for Hi-Action which remained stable) including the Controls decreased significantly. Finally, neither of the course evaluation scales on the Semantic Differential revealed between group differences.

CHAPTER IV

DISCUSSION

It was the intent of this study to experimentally examine and vary the training/supervision/intervention (TSI) aspects of a nonprofessional diversion program for juvenile delinquents. College students were presented with one of four different methods of TSI (Hi-Action, Hi-Relationship, Lo-Small or Lo-Large) or were placed in a control group to provide findings relevant to the effects of structure and content of training/supervising nonprofessional workers. Three different areas were examined in order to draw conclusions about the impact of the program. First, youth outcome was examined in order to answer the question "what was the relative effectiveness of the TSI strategies in terms of the targeted youth." Second, target and volunteer oriented process measures were used to determine "what did the students do during the actual intervention period with the youth" and "did what they do relate to the outcome data." Third, a number of student measures--including attitude scales, career questions, tests of skills knowledge--were analyzed in order to assess "how did students change as a result of participation in this project" and "how did these changes in attitudes, knowledge, etc. relate to youth outcome." The overall results of this study indicated that varying TSI strategies did have differential

effects on outcome and process components for both the targeted youth and student volunteers.

Youth Outcome

Analyses of the school data indicate that the Hi-Intensity youth tended to remain more stable over time than the youth in the other three groups. Hi-Relationship youth (who had a slightly different pattern of school peformance to begin with, in that they had a lower grade point average than the other groups and had a higher rate of attendance) remained stable on all three school measures--grade point average, attendance and proportion of credits taken to credits earned. Hi-Action youth remained stable on the latter two measures, but dropped significantly on the first. Lo-Small youth remained stable in their grade point average, dropped nonsignificantly in the proportion of credits taken to credits earned and dropped significantly in their rate of attendance. Finally both the Lo-Large and the Control groups dropped significantly on all three of the measures. Since the overall tendency was for these groups to drop over time, it seems especially noteworthy that the Hi-Intensity groups were able to remain stable, to keep at their status quo and not to get worse over time. These findings replicate those found in the Illinois project (Davidson et al., 1977), where the intervention approaches used were seen as contributing to the stability of school performance.

The results of the court data indicated a pattern for all groups to have more offenses on petitions filed at pre-quarter 4 and

then less during the post periods. Since the offense(s) committed during pre-quarter 4 was (were) typically the one(s) that led to the process of the youth being referred to the project, it is not at all surprising that this was the highest period. Between the pre and post periods, Lo-Large and Hi-Action groups completely reversed their positions, for the Hi-Action group began by having the most peitions filed and ended with the least and Lo-Large youth began with the least number and ended with the most. On the other court measure, Seriousness of Offenses, Hi-Action again totally reversed its position, from most to least serious. Furthermore, when the Hi-Action group was combined with the Hi-Relationship group, the analyses revealed that they did significantly better (had less serious offenses) than the other three groups combined.

The apprehension-police data was certainly less clearcut than the other two data sets. The same time effect that was noted on the court data, a large increase in the number of offenses and seriousness at pre-quarter four and a drop in both during the post quarters, was observed. Yet, there were no between group differences on the number of offenses committed during the post period or on the seriousness of the offenses. Curiously, the Control group began with the lowest or nearly the lowest scores during the pre periods and had the lowest scores during the post periods on both measures. The lack of relationship between the findings on the court measures and the apprehension-police measures was unexpected since in previous research (Davidson, 1975) the mean correlation between number of

petitions (police), seriousness of petitions (police) number of petitions (court) and seriousness of petitions (court) was .92. In the present study, two of the 12 youth identified as failures by the apprehension-police records were not identified as failures by court records. Furthermore, five of the 14 youth identified at the court level were not found in the apprehension-police data. While the lack of corroboration for the first two youths seems quite logical, in that no further punitive measures might have been taken, the fact that five of the youth that went even further along formal lines to court processing were not identified at preliminary stages is puzzling. Unlike both the school and court data, which came from specific institutions--the school that the youth attended and the one court building--the apprehension-police data came from a variety of sources. These sources included local and state police departments, sheriffs' offices and various branches of department stores, which have the power to file petitions against youth directly with the court. The lack of consistency in recording and filing offenses, the possibility for slippage in an agency such as the Lansing Police Department with its hundreds of police officers, was obvious when this data set was compiled. Thus, this data should be interpreted with caution.

On the basis of the above findings, the question of "what was the relative effectiveness of the TSI strategies with the targeted youth" can be addressed quite directly. Conclusions seem to be that Hi-Intensity strategies had more positive effects on the

targeted youth, in terms of how they behaved at school and whether they became recidivists than the strategies of the Lo-Intensity and Control groups. (The outcome for youth in the Control group was used as a basis for comparing the outcome of the youth in the four project conditions.) In fact, of the seven desired changes (reducing frequency and seriousness of court and police contacts and remaining stable on the three school measures) the Hi-Action group made 5, the Hi-Relationship group made 4, the Lo-Small group made 2, the Lo-Large group made 0, with one in the wrong direction and the Controls made 0. As can be seen from this summary, a further differentiation can be made by placing Lo-Small youth in the middle of a continuum, having done less well than Hi-Intensity youth but having done better than Lo-Large and Control youth. This continuum of results is important to note for it reoccurs in several of the student measures, such as the student evaluation of the project experience and the student attitude measures. Obviously all of these results are preliminary and follow-up data needs to be collected and analyzed before final conclusions can be drawn.

Some speculation at this point will be made about the impact of having a highly intensive and detailed TSI program. This speculation and hypothesis generation will be done at the end of each of the major sections of this chapter and consistent and inconsistent findings will be highlighted and dealt with more directly in a final section. It appears from the above findings that the Hi-Intensity groups, performing their individual and quite specific skills and

techniques were more effective than those groups of students who received little training/supervision. It seems that students need an arsenal of specific skills, no matter what the content, orientation or philosophy behind these skills, in order to achieve the best results with the targets. The frequency with which groups meet for training/supervision appears to be important, for the groups meeting more frequently had more success. The size of the group in which training/supervision takes place also appears to be an important component of the TSI process, for all three of the conditions having small class meetings were more effective than the condition meeting in one large group. Finally students in the Lo-Large condition, receiving minimal training/supervision in a large group had no more impact on their youth, in terms of youth outcome, than the Control group of youth who were not assigned to students and received treatment as usual from the court. In fact it could be tentatively stated that the Lo-Large group did worse than the Control group. On the basis of these preliminary outcome finings it seems clear that training/supervision are important components and that those who hastily throw together nonprofessional programs, thinking that any type of program is better than nothing for the target population, may be wasting time, money and additional resources.

Process-Intervention Monitoring

Two types of measures, the Tally of Outside Contacts with Supervisors and the three process scales of the Intervention Survey,

were used in answering the question of what the students did with the youth during the intervention period (were there differences as expected between the groups with different TSI strategies). A further interest in performing these analyses was in assessing how and if these process measures related to the youth outcome data.

On the Tally of Outside Contacts with Supervisors, using average minutes per term per student as the comparison, it was very clear that Lo-Intensity students contacted their supervisors much more frequently outside of class than did the Hi-Intensity students. Having not received specific skills and techniques during the training/supervision period and having little time during the monthly meetings to discuss and plan about their cases, students in the Lo-Intensity conditions sought contact with their supervisors fairly frequently. Unlike the Hi-Intensity groups, whose contacts to supervisors outside of class seemed problem-centered, the records of the content of contacts revealed that the Lo-Intensity groups also called to let the supervisors know that things were going well and that goals had been accomplished. As well, during the final term, Lo-Intensity students frequently called to get assistance with writing the required termination reports. The weekly supervision meetings for the Hi-Intensity groups provided the format and structure for the students to share more frequently with their supervisors and fellow students inside of class and to be kept more up to date on administrative and course matters. While in the final analysis students in the Hi-Intensity weekly classes had more contact with

their supervisors than the students in the Lo-Intensity groups, program developers who want to use infrequent supervision periods must calculate and provide for the numerous unplanned contacts.

Goodman's (1972) findings that students receiving limited training/supervision contacted supervisors outside of class at the same rate as those who received more training/supervision (which were contrary to what was expected from the literature) were not substantiated in this study. It appears from the present findings that the training/supervision component is important for several reasons, such as providing social support systems for the students, reducing anxiety and giving technical assistance. When training/supervision was provided in a low intensity model which did not allow for much individual monitoring of cases or the opportunity for social support networks to become established, students sought their supervisors outside of class. The possibility that Lo-Intensity students did not have the social support networks that Hi-Intensity students had is further reinforced by the pattern of results on the Social Support Received scale from the Course (TSI) Evaluation measure.

When the Tally measure was related to the success-failure criterion for the targets, differences between those who worked with successful youth and those who worked with unsuccessful youth emerged. Volunteers working with failures contacted their supervisors much more frequently during the second term than those working with successes. This time period was when the majority of the 18 week

intervention took place. Thus, those who had an especially difficult time with their assigned youth relied on their supervisors outside of class to give them suggestions and support. Supervisors need to be forewarned of this eventuality. During the third term, successes contacted supervisors more frequently, especially to gain assistance in writing their termination reports. The frequency of these contacts about termination reports suggests that Lo-Intensity classes in particular should plan an extra meeting during that time in order to more effectively and efficiently deal with the questions that the students have. Furthermore, since contacts to supervisors appeared to be primarily reactive in nature, it seems that anticipating problems and planning for them in advance, by having additional supervision sessions, would help to better prepare students and possibly teach them how to intervene in a more positive, constructive fashion.

The Contracting, Advocacy and Relationship scales of the Intervention Survey were considered training/supervision manipulation checks. The Contracting and Advocacy scales did reveal an ordering of the groups that was expected on the basis of the training/supervision given to them. Hi-Action students, taught very specific contracting and advocacy skills manifested the highest level of these techniques during the intervention period. Hi-Relationship students, who were provided with an intervention model that promoted the one-to-one relationship with the youth and minimized and even restricted their involvement in the relationships of the youth with significant others, had the lowest scores on these two scales. The

Lo-Intensity groups, given free rein for their interventions had scores in between the above mentioned groups. As measured by the Relationship scale, all groups did significantly more relationship building over time (presumably as they got to know their youth better and vice versa, they felt more comfortable sharing personal information with each other). The Hi-Relationship group was provided with much more specific and detailed relationship building skills and was expected to score highest on this scale. Contrary to expectations, there were not any between group differences. There are two possible explanations for the lack of differences between groups on the Relationship scale. It could be that promoting this type of relationship with many delinquent youths is very difficult and that attempts by the Hi-Relationship group to go further into the intervention model were frustrated by the specific target population. Furthermore the more advanced steps of the relationship model are dependent on cognitive, conceptual skills, which may not be within the repertoire of many of these youth. A second explanation for these results might be that college students as a group have a high degree of social skills already within their repertoire and do not need to be taught them as extensively (Goodman, 1971; Rappaport et al., 1973).

The success-failure independent variable provided some additional information about the manner in which students worked with their youth. On the Contracting scale, failures in the Hi-Action group did more contracting techniques than did the successes within

the group. This pattern of failures engaging in more specific intervention activities was repeated on the Advocacy scale. On the basis of this information one might begin to postulate that volunteers working with failures tended to respond reactively. That is, when their youths began to get into trouble again these nonprofessionals attempted to implement stop gap measures. Based on the timing of these techniques, it appears that for failures the interventions that most often used the specific skills tended to be problem centered, rather than focused on increasing environmental resources and improving interpersonal situations in a more positive, constructive way.

Obviously it was not the specific set of skills alone that provided the distinction between success or failure of a youth. Even though Hi-Action and Hi-Relationship groups were the most extremely different on the Contracting and Advocacy scales, they had relatively the same impact (especially as compared to the Lo-Intensity groups) on the youth outcome. Furthermore, the specific relationship skills implemented by the Hi-Relationship group did not differentiate them from the other groups, yet they in fact were as successful as Hi-Action students. As suggested above, the lack of difference may be due to the difficulty in engaging in such a relationship with delinquents and/or the level of knowledge and use of relationship skills by college students as a whole. One may now postulate on the basis of these results that it was the specific skills in combination with a highly formal and structured training/supervision process, with

weekly checks of the student-youth progress, that had the most influence on the success of the student-youth relationship. As well, the need for process measures to be an integral part of research cannot be over emphasized. Again, a note of caution should be interjected at this point, for the conclusions discussed above were based on preliminary findings and follow-up data needs to be collected.

College Students

A number of student measures were scrutinized in order to determine how students changed as a result of participation in the program and how this was related to youth outcome. The measures were grouped into three main categories: (a) Training Manipulation Checks--knowledge, skills, supervisors; (b) Course (TSI) Evaluation--reactions to structure, format, etc.; and (c) Career Interests and Attitude Change.

Training Manipulation Checks

On the basis of the scales of the Training Test it was concluded that the Hi-Action group learned and retained the appropriate behavioral contracting/childhood advocacy skills and the Hi-Relationship group learned and retained the specific relationship skills. Thus, as a result of training, the Hi-Intensity groups did learn the knowledge and skills presented to them. Furthermore, the three groups not receiving the specific detailed training measured by the particular scale but who participated in the project experience

knew no more in these areas than college students (the student Controls) who just had general knowledge in the field. The two Training Test scales did not differentiate the volunteers who succeeded from those who failed with their youths. It appears that the knowledge that one gains from a highly structured training program does not determine the success of the intervention.

Since supervisors were nested within the experimental condition it was considered important to assess how students responded and reacted to their supervisors. Supervisors were not perceived as different from each other on either the main Supervisor Ratings scale or on the Supervisors-Evaluative concept on the Semantic Differential Attitude Scale. Thus, the general personality, style, etc. of the supervisors did not appear to be different. There was one difference, however, on the Offer Expert Answer scale, which seemed to highlight the differences between groups as expected from the training manipulation. There was an overall trend for Hi-Relationship students to see their supervisors as providing fewer expert answers and for the Hi-Action group to see their supervisors as providing more expert solutions. The two Lo-Intensity groups were in between the other two groups. In terms of the training manipulation, the Hi-Relationship supervisors were expected to promote discussion of the youth's feelings and experiences as well as the volunteer's and to aid the volunteer in generating a unique solution for that particular relationship. The Hi-Action supervisors had very specific skills and techniques that they wanted their students to use when problem

situations arose. While this scale differentiated the Hi-Action group from the Hi-Relationship group, these two groups were the most similar in terms of youth outcome. The role that the supervisor took, in terms of being directive or non-directive in supervision did not seem to differentially affect youth outcome. Rather, the structured monitoring of cases on a weekly, regular basis in combination with a specific TSI content and theory seemed to be crucial components. However, as will be noted below, the role of the supervisor did seem to have some impact on the level of student satisfaction and morale.

Course (TSI) Evaluation

On the very general concept Psychology 390-400-490-Evaluative on the Semantic Differential Attitude Scale there were no between group differences. However, differences were found on the more specific scales of the Course (TSI) Evaluation. Table 43 presents the rank ordering of the four experimental groups at Time 2, which was the assessment period after training was completed, and Time 4, end of course assessment, on each of the six Course (TSI) Evaluation scales. The Hi-Action group tended to remain fairly stable over time or to improve its rank. It appears that the experience was positive for them and remained fairly constant or improved over time. Except for their stable position on the scale Social Support Received, the Hi-Relationship group ended at a lower position at the end of the year than the one in which they began at the end of training. It seems that over time, when compared to the other three conditions,

Table 43

Course (TSI) Evaluation - Rank Orderings

Scale	Condition							
	Hi-Action		Hi-Relationship		Lo-Small		Lo-Large	
	Time 2	Time 4	Time 2	Time 4	Time 2	Time 4	Time 2	Time 4
Evaluation of Academic Course Learning	1	1	2	3	3	2	4	4
General Course Evaluation	4	1	3	4	1	2	2	3
Evaluation of Didactic Training	2	1	1	2	3	3	4	4
Evaluation of Class Discussion	1	2	3	4	2	1	4	3
Social Support Received	1	1	2	2	3	3	4	4
Evaluation of Grading Scheme	4	2	1	3	3	4	2	1
Average Rank	2.17	1.33	2.0	3.0	2.5	2.5	3.33	3.17

they became less satisfied with the course (TSI) experience and thus, were less positive in the way they rated the academic course learning, the general course experience, the didactic training, class discussion and the grading scheme. The mean scores of the Lo-Small group remained fairly constant over time or dropped nonsignificantly. At Time 4 assessment this group had the first or second rank ordering on the evaluation of the academic course learning, the general course evaluation and on the evaluation of class discussion. They were lower on the other three scales. The Lo-Large group tended to be at or near the bottom and/or to drop in their mean scores over time. This pattern appeared on all of the Course (TSI) Evaluation scales except for the one used to evaluate the grading scheme, which they rated most positively.

As reflected by the findings on the Evaluation of Didactic Training scale, the two Hi-Intensity groups were significantly more positive about the training and intervention model employed than the two Lo-Intensity groups. On the scale Social Support Received the two Hi-Intensity groups combined again scored higher (felt they received more support from fellow classmates and friends about training and their cases) than the Lo-Intensity groups. As suggested above, this may account for the relatively fewer outside contacts made to supervisors by the Hi-Intensity students. The Lo-Large group increased significantly over time, which may be accounted for by the fact that they came to know the students in their class better as the year progressed and could talk with them more.

On the four scales of the portion of the Course (TSI) Evaluation given only to those in the Hi-Intensity classes only the first scale, Evaluation of Assigned Readings had significant findings--a time and success-failure interaction. Successes tended to become more negative about the outside readings, while failures became more positive. Failures may have turned to the readings in a reactive fashion when their youths began having problems. This effect is not surprising since supervisors typically advised students having difficulty to review the readings assigned to them in the training component. There were no condition effects on these four scales, indicating that the two Hi-Intensity groups were not different in the way that they evaluated the format and structure of their training process.

The continuum of results noted in the youth outcome measures was further evidenced in these evaluations of the project experience. Conclusions to be drawn from the results discussed above include the following: the Hi-Action group tended to feel most positively about the overall TSI experience; the Hi-Relationship group appeared similar to the Hi-Action group in terms of their evaluation of the didactic training and the amount of social support received, but they became more negative, seemingly more frustrated with other aspects of the TSI experience over time; the Lo-Small group was more diverse in its evaluation of the TSI components, for they were positive on about half, less positive on the other half; finally the Lo-Large group tended to be the most negative. Unlike the Hi-Relationship

group, which changed over time, the dissatisfaction of the Lo-Large group seemed to be their stance throughout most of the project. The differential reactions by the four experimental groups to the project experience raise a number of questions about the impact of such reactions on youth outcome.

Thus, the next questions to be answered are "how and whether the differences between groups on the Course (TSI) Evaluation affected youth outcome." None of the analysis of variance designs that used the success-failure independent variable (except for the Evaluation of Assigned Readings scale) demonstrated significant findings for this variable. Yet, by comparing the pattern of the experimental conditions on the outcome data with that on the Course (TSI) Evaluation scales one can see that Hi-Action students were most positive and their youths did about the best, Lo-Large students felt least positively and their youths did the worst and the Lo-Small group, both students and youths, were in a middle position on both data sets. However, the notion that how youths did during the course of the involvement influenced how the student volunteers felt about their experience or vice versa seems only partially supported. Lack of consistent results between the Course (TSI) Evaluation and youth outcome is due to the fact that the Hi-Relationship youth did quite well comparatively, yet the students who worked with them became more negative and dissatisfied over time.

In a study by Lourie, Rioch and Schwartz (1967) nonprofessionals were rated as being useful and competent but they were dissatisfied

because they were not doing what they had been trained to do. It may be that students in the Hi-Relationship condition felt stymied in their attempts to advance in the relationship model with youths who were perhaps unwilling or unable to perform problem-solving tasks on a verbal, conceptual level. In addition, since students were working on a cognitive, abstract level themselves they may have had difficulty evaluating how they were doing with the youth. Since they were not specifically intervening within other systems involved with the youth, unlike the other groups, they were also less likely to receive feedback from other individuals in the youth's environment. Due to these difficulties, as well as the fact that the goals they were working on were not specifically related to the youth outcome and recidivism measures, the Hi-Relationship students might have thought their youths were doing less well than they actually were. However, since their youths did well in spite of the fairly negative course evaluations by the Hi-Relationship students, it can be concluded that negative feelings need not affect the actual intervention with the youth. Whatever dissatisfactions there were--whether due to difficulties in implementing the model, not receiving feedback, feeling as if the youths were not succeeding, complaints about the training model, etc.--were directed primarily at the components of the TSI model, as evidenced by the results on the Course (TSI) Evaluation as well as other project measures. In the future it would be important to assess how well the students themselves thought they

were doing with the youth, to see how their perception related to their experience and satisfaction with the TSI model.

Career Interests and Attitude Change

Two measures, Career Goals and the Human Services Career-Evaluative scale on the Semantic Differential, were used to assess the affect of program participation on career goals. On the Career Goals measure, there were not differences between groups (including the Control group) or over time within groups on whether students wanted to have a job immediately after graduating from college, wanted to attend graduate school or eventually planned to have jobs related to human services and the Adolescent Diversion Project. However, on the Semantic Differential scale noted above, all groups (except for Hi-Action) including the Control group liked human service careers significantly less over time, particularly dropping at the Time 2 assessment period. Hi-Action students also dropped somewhat at this time, but they seemed to regain their more positive attitude. Hi-Relationship students stabilized and the two Lo-Intensity groups continued to drop. The pattern of scores seems to reflect the same general continuum that has been found on the other youth and student measures.

Literature in the area of career goals has presented mixed feelings. Based on a review of many nonprofessional studies, Durlak (1971) summarized that many felt that after an experience in the mental health field nonprofessionals were more likely to pursue mental

health career. However, Kulik et al. (1969) found that sometimes nonprofessionals became disillusioned about their own abilities to assist others after participating in such a program. Based on the findings of the present study it appears that first, students as a whole became less idealistic about human service careers and second, the type of TSI strategy and experience that one was trained/ supervised and participated in differentially influenced one's attitude toward human service careers. The Lo-Intensity groups seemed to have found the experience more frustrating and their youths did less well, so they became less interested in and more frustrated with the human service area.

Two measures, Self-Rating and the Myself-Evaluative scale on the Semantic Differential were used to assess the impact of program participation on one's self ratings. The results of the first measure, Self-Rating, indicated no significant differences between all five groups (including Controls) at the Time 4 assessment. Over time, all of the experimental groups went up (were more positive at the Time 3 assessment period) and except for the Lo-Small group which went up significantly at the Time 4 assessment, all other groups returned to about where they started. On the Myself-Evaluative scale the Lo-Intensity groups decreased significantly, while the Hi-Action, Hi-Relationship and Control groups remained relatively constant. In addition, during the last three assessments there was a trend for the Hi-Intensity groups to be higher than the Lo-Intensity groups. In summary, on the first measure there was an increase and then a return

to the original level, with no significant differences between groups. On the second, the Control group and Hi-Intensity groups remained constant while the Lo-Intensity groups dropped.

These results seem very different and appear to reflect the mixed results found in the literature. Rappaport et al. (1971) found no significant differences over time on the way college students working with mental patients rated themselves on the Semantic Differential concept "myself." Cowen et al. (1966) found that volunteers working with troubled school children changed the description of "myself" over time toward the less pleasant side of the ratings. This was interpreted as a change toward more realistic self-definitions. Goodman (1971) found that students who worked as companions to troubled youth significantly decreased in their use of favorable words about themselves on an Adjective Check List and he concluded that students systematically reduced their favorable self-definitions after participation in the project. Goodman's finding reconfirmed that of Van Coovering (1966, cited in Goodman) who found that students who served as companions to juvenile delinquents for one school year had a tendency for less socially desirable self-descriptions. On the other end of the continuum, findings by Holzberg, Gewirth and Ebner (1964) suggested improved self-image over time. Both Durlak (1971) and Kelly et al. (1977) concluded that individuals participating in helping programs improved their own sense of self-worth. It may be that what was used to measure self-worth, self-image, etc.--for example, Semantic Differential Attitude Scale, Adjective Check List,

open-ended questions--evoked different kinds of responses. In addition, different results seemed to have been found depending on the type of target population worked with, for it appeared that those volunteers working with mental patients had more positive self-ratings at the end of their participation than those working with troubled and/or delinquent youth. Finally the length of time that the program lasted and the time points at which the assessments took place also seemed to affect the results. Overall those students who worked for a shorter period of time often tended to retain their idealism while those who worked for a full school year with fairly frequent and lengthy visits, especially to the target's home rather than a specific institution, often became frustrated and disillusioned.

The findings on four of the ten Evaluative Semantic Differential Attitude scales have already been discussed in this chapter. (The Psychology 370-400-490-Evaluative and Supervisors-Evaluative scales did not reveal any significant differences. The Myself-Evaluative and Human Service Career-Evaluative scales showed differences between groups and the findings will be reviewed when the overall results about attitude change are summarized.) The six remaining scales will be discussed in three categories: first, scales measuring attitudes toward established institutions that volunteers had to deal with; second, scales measuring attitudes toward systems of a less institutionalized nature; and third, a scale measuring attitudes toward targets (see Table 44 for a summary of the direction of attitude change over time for the experimental groups and the Controls).

Table 44

Semantic Differential Attitude Scale - Attitude Change Over Time

Scale	Condition				
	Control	Hi-Action	Hi-Relationship	Lo-Small	Lo-Large
Myself-Evaluative	Stable	Stable	Stable	Down-S**	Down-S**
Human Service Career-Evaluative	Down-S**	Stable	Down-S**	Down-S**	Down-S**
Juvenile Justice System-Evaluative	Down-S**	Down-S**	Down-NS*	Down-NS*	Down-S**
School-Evaluative	Stable	Down-S**	Down-NS*	Down-S**	Down-S**
Police-Evaluative	Down-S**	Down-NS*	Down-S**	Down-S**	Down-S**
Diversion-Evaluative	Down-NS*	Up-NS*	Up-NS*	Down-NS*	Down-S**
Employment Programs for Youth-Evaluative	Up-NS*	Up-NS*	Down-NS*	Down-S**	Down-NS*
Target-Evaluative	Stable	Up-S**	Stable	Down-NS*	Down-NS*

* NS = Nonsignificant

** S = Significant

On the three scales dealing with institutionalized systems--Juvenile Justice System-Evaluative, School-Evaluative and Police-Evaluative--there was an overall tendency for volunteers to become more negative over time. The overall decline on scores on the Juvenile Justice System-Evaluative scale and the Police-Evaluative scale included the students in the Control group and thus, did not seem to be a result of the project experience. On the School-Evaluative scale the Hi-Action and Lo-Intensity groups had scores which declined significantly over time, the Hi-Relationship group dropped nonsignificantly and the Controls remained stable. The development of less favorable attitudes over time toward the institutions worked with parallels the findings of Rappaport et al. (1971) and Cowen et al. (1966). However, on the School-Evaluative scale differential attitude change seemed to take place among the groups as a function of project involvement and TSI strategy. The Controls did not change their attitudes and the Hi-Relationship group was not as negative about the school system, perhaps due to its lack of direct contact with it.

Two scales measured attitudes toward systems of a less institutionalized nature: Diversion-Evaluative and Employment Programs for Youth-Evaluative. On the former scale, which reflects attitude change about the type of program that the volunteers themselves were involved with, the Hi-Intensity conditions became more positive over time, perhaps because their youth did not officially recidivate to the extent that the Lo-Intensity youth did. On the second scale above,

Controls and Hi-Action students became more favorable while the other groups became more negative in their attitudes regarding employment programs for youth. Perhaps the specific skills that the Hi-Action students learned about intervening within the youth's environment helped them to feel more satisfied with the employment programs available to their youth. Again, more favorable attitude changes are reflected in the scores of the Hi-Intensity groups combined in the first case and the Hi-Action group individually in the second.

Finally, on the scale concerning attitudes toward the target population, Target-Evaluative, the often found continuum of results was evident. Hi-Action students became significantly more positive, Hi-Relationship and Control students remained stable and the Lo-Intensity groups became more negative in their attitudes toward the target groups. Typically the literature has noted the development of more positive attitudes toward the individuals worked with (e.g., Rappaport et al., 1971) with the explanation being that the volunteers tended to identify with those they served. It appears from the differential findings that the type of TSI experience influences the identification process that occurs. Hi-Action students became more positive toward the targets, perhaps due to their feelings about the course and project experience and the fact that their youth did well. Controls did not participate in the project and did not change their attitudes toward the target population. Hi-Relationship students had more mixed reactions about the total experience and may have had some difficulty assessing how their youths were doing. Perhaps due to

this they felt distant from their youths and were not able to identify with them. Lo-Intensity students seemed more negative in their views of the experience and their youths did less well, which resulted in a less positive attitude about those they worked with.

Based on the research findings in the literature it was expected that all four project groups would develop negative attitudes over time toward institutions and systems, more favorable attitudes (or no change) toward the target, programs working on behalf of the targets, human service careers and themselves. In summarizing the extent and direction of attitude change among conditions, it is clear that the attitudes of the groups changed in various ways. On the whole the Lo-Intensity groups appeared to find the experience negative and thus all of their attitudes became more unfavorable over time. Without specific skills, with limited support provided by the supervisory structure and with the failure of a number of their youths the students in these conditions seemed to become more negative. Their frustration might have also led to their responding to the assessment measures in a global, undifferentiated negative fashion. The Control group and the Hi-Relationship group were more variable in their responses, remaining stable on some scales, increasing or descreasing on others. The Hi-Action group seemed to be the most positive about the total TSI experience and the results found were those expected from literature. Thus, program participation does not in and of itself affect attitude change in the expected direction. This will be discussed in further detail below.

On the basis of the above findings regarding career interests and attitude change, some comments can be made about their relationship with youth outcome. As discussed above, the career and self questions had mixed results depending upon the measure used. Furthermore no statistical relationships between the success-failure variable and these measures were found. This is not surprising when one considers both the very small cell size in the failure category, producing high error estimates and decreasing the amount of power in the statistical analyses, and the high stability over time of the measures used. Attitude change as measured by the various scales of the Semantic Differential appeared to be related more to TSI condition than to success or failure. This was characteristic of the youth outcome and student measures as well. Yet, as suggested above, one must and can consider the overall trends leading toward the youth outcome results, such as the interrelationship between condition and success-failure. Lo-Intensity groups felt particularly frustrated and negatively and they failed more with their youth. Hi-Action felt most positively and did about the best with their youth. Hi-Relationship students had more mixed attitudes, which seemed to support the findings about this group from other project measures. For example, Hi-Relationship students felt fairly positively about the target population and in fact the youths they worked with did comparatively well. They felt frustrated about the course and training experience and this seemed to be reflected in many of their more negative attitudes--e.g., human service careers.

Training/Supervision/Intervention Strategies

The next portion of this final chapter will provide a brief overview of what the experience was like for students in each of the four experimental groups.

Hi-Action

Students in the Hi-Action TSI condition received a high intensity training and supervision package. Their classes were held weekly and they were taught specific behavioral contracting and advocacy skills to perform in their interventions with assigned youth. On the whole these students learned and remembered the specific skills they were taught. Furthermore these students seemed to feel favorably about the course (TSI) experience from the beginning and to maintain these positive feelings throughout the program. On the open-ended questions that were part of the Course (TSI) Evaluation a few students in this condition responded that they did not perform what they were taught since their youths did not require it. One member wished that there had been a humanistic, therapeutic component to the training. Yet, students did not seem negative about the Hi-Action TSI experience. An example of the type of consistent reply given by the same student is: Time 2--"Training provided a systematic way in which to handle problems once they arise" and Time 4--"Training met my expectations." Attitudes of the volunteers in this condition changed differentially as a result of program participation--e.g., became more favorable toward the targets and less favorable toward the school system.

In terms of the actual interventions carried out with the youth, the Hi-Action group scored highest on the Contracting and Advocacy scales. As measured by a number of other process scales used in this project (Kantrowitz, Davidson, Blakely & Kushler, 1978) Hi-Action students also had high scores on the scales dealing with parental involvement, family intervention focused on the parents, school intervention: focus on changing the youth and school intervention: focus on changing the school.

In terms of youth outcome, both Hi-Action and Hi-Relationship youth did better than youth in the Lo-Intensity and Control conditions. In a few instances Hi-Action youth were the worst before project involvement and finished as the best. Thus, the success of Hi-Action youth and the satisfaction of Hi-Action students with their training/supervision/intervention model combined to make the overall TSI experience a very positive one for these college student volunteers.

Hi-Relationship

The Hi-Relationship condition presents a more varied picture than Hi-Action. Nonprofessionals assigned to this condition learned and retained knowledge about the skills they were taught in the training component. In the early portion, when training was focused on themselves and communication and relationship skills, many of the students seemed pleased and excited about the experience and training model. (Some, however, seemed anxious about self-disclosing within class.) The intervention with the delinquent youths seemed to add

another dimension to how students regarded training/supervision, for by the Time 4 assessment period students clearly felt less positively about their experience. Some examples of this shift over time as shown on the open-ended responses to the Course (TSI) Evaluation are presented below: Time 2--"Training taught me how to go about solving my own problems. This course taught me a lot on getting along with people" and Time 4--"I had high expectations and the training didn't permit me to handle things the way I felt things should have been handled. I couldn't help him look for a job for one thing. . . ." Another student at Time 2 said--"I received more training than I expected" and Time 4--"I expected more intervention on our part." The results on the attitude measures were varied--e.g., students became more positive about diversion, remained stable toward targets, yet, they developed unfavorable attitudes toward human service careers.

On the Relationship scale of the Intervention Survey students in this condition were not measured as being different than the other students in terms of communication and relationship techniques they used and implemented with their assigned youths. They were very different, however, on the numerous other process scales used in the overall project (Kantrowitz et al., 1978) for they almost consistently implemented the smallest amount of the activity being assessed. These findings were seen as evidence that students in the Hi-Relationship condition kept within the intervention model they were assigned to and did not involve themselves with the youth's home, family, school or community. However, the primary focus on the

relationship between student and youth seemed to be felt as a limitation and restriction by the group members, as evidenced by the comments to the open-ended questions which were cited above. When their youths began to experience problems these volunteers seemed to become frustrated and confused. Supervisors were not seen by them as providing expert solutions and students seemed to feel that they did not know what to do. Students working with youths who failed did much less over time with these youths, in contrast to those in the other conditions who responded reactively and intensified their activities with failure youth. The apparent difficulty in knowing how to use the skills they had learned within the real life situation of their youth, the feeling of being limited in what they could do within the intervention, the difficulty in completing the overall goal of discussing feelings and problem solving methods, the difficulty for the student in assessing the impact of the cognitive goals in changing the youth, the feeling of not doing what they were trained to do, and the sense that supervisors would not respond with expert answers to help them but would focus on inner feelings and thoughts help to explain why students in this condition became frustrated and more negative as the intervention period progressed.

Yet, in spite of the frustrations and feelings of restraint and uncertainty that were present in this condition, youths who were assigned to students in this group did as well as the youths in the Hi-Action group and better than the youths in the two Lo-Intensity groups and the Control group. Perhaps because of the small classes

and the weekly monitoring of case progress, students were able to put aside their discontent and frustrations when working with the youths. Their frustration and anger seemed to be directed more at the course experience, particularly supervision. For example, students in this condition missed the greatest number of class sessions, despite the fact that a portion of their grade was based on attendance. Thus, students in the Hi-Relationship condition were pleased about some aspects of their experience but were quite dissatisfied about others.

Lo-Small

Students in the Lo-Small group were not taught any specific intervention techniques. They met three times for general orientation sessions and then had monthly supervision. Lo-Small students liked some aspects of the TSI experience and disliked others. They may have felt that they did receive some special attention in the supervision meetings for the classes were not as large as the Lo-Large class. However, they felt that they had little or no training. Some examples of the types of comments made by group members on the open-ended questions include: Time 2--"needed more training" and Time 4--"no training given except use your common sense." While some students liked having the freedom "to draw on my own resources for dealing with the situation," several students at Time 4 felt that more intensive training would have helped them "reach" their youths. Although students in this condition did feel positively about some aspects of training/supervision--e.g. class discussion--they felt

restrained by the limits of the low intensity structure. One of the Lo-Small classes even tried to organize weekly supervision sessions, but when the supervisors said they would not participate and members were discouraged from proceeding they only met once. Lo-Small students responded with many suggestions about how to improve the training/ supervision components--such as more frequent meetings, speakers, etc. Although more positive about some aspects of the course, Lo-Small students developed unfavorable attitudes toward all of the concepts measured by the Semantic Differential Attitude Scale. It may be that they did in fact become frustrated and disillusioned about each of the separate concepts. It may also be that their frustration with the limitations of the course prompted them to respond in a global fashion to the measures.

Students in the Lo-Small condition tried out a moderate amount of different intervention techniques and tactics, some of which overlapped the specific skills of the Hi-Action group. As with the failures of the Hi-Action group, the students working with failures seemed to do a great amount of specific intervention activity in reaction to their youth getting into trouble. They may have contracted their supervisors much more often in order to get specific ideas and suggestions for working with these youth. Lo-Small youth did worse than youth in the Hi-Intensity conditions but better than youth in the Lo-Large and Control conditions. Overall, students in this condition liked some aspects of the TSI experience but felt dissatisfied with the limited training and supervision. They

especially seemed to feel that they could have been more successful if they had been provided with more training/supervision.

Lo-Large

Students in this condition met in one large group for training/supervision sessions. They met three times for the general orientation and had monthly supervision. Lo-Large students seemed to feel negatively about almost the entire TSI experience. Their dissatisfaction developed by the time of the Time 2 assessment and was maintained throughout the experience. Seven students in this condition (as compared to none in Hi-Action, one in Hi-Relationship, and five in Lo-Small) expressed the belief that they had received too little training. Some members even felt that they had gotten no training at all. Open-ended comments by this group were similar to those of the Lo-Small group. Some students liked the freedom of the approach while others felt unprepared. Some examples of the overall negative feelings of this group at Time 4 include: "Many more problems than expected. I thought it would be easier and the kid easier to get along with, hard to solve problems set by a family and a different culture." "I first thought I could make changes until I realized I could not change in 18 weeks what she has experienced for her lifetime. The training prepared us for this yet I feel I would have done better for her with more training." Similar to the Lo-Small group, Lo-Large students developed negative attitudes toward all of the concepts measured by the Semantic Differential. Lo-Large students were also

very similar to Lo-Small students in the way that they intervened with their youth. They did a moderate amount of specific techniques and responded reactively to youths who began to officially recidivate. Yet, Lo-Large youth did not do well when compared to the other conditions. In fact, the youth did no better and possibly worse than the youths in the Control group who received treatment as usual from the court and did not work with a volunteer. Klein and Carter (1976) Berger and Gold (1976), and others have presented research findings suggesting that treatment programs for delinquents can be harmful, leading to relatively greater recidivism and less positive behavior from the involved youth as compared to those receiving no treatment. The differential effects on youth outcome of the four project conditions and the Control group in the present study support the view that while some treatment programs can be harmful, there are others that are helpful. In the Lo-Large condition, the combination of receiving limited training/supervision (meeting only once a week in a large, impersonal group) and feeling hampered by a lack of specific skills seemed to result in both measured dissatisfaction of this group on almost all of the evaluations used in this project and in the failure of this group in terms of youth outcome.

It seems important to note that the two trainer/supervisors in the Lo-Small and Lo-Large groups also felt much of the dissatisfaction and uneasiness that the students did. By only meeting once a month with the students and by only being supervised themselves once a month, these trainer/supervisors reported feeling a lack of

connectedness with both the students involved and the project. As well, having but two hours a month with each class, they felt stymied and unable to do the kind of job they would have liked to in following the cases.

Summary

From the summaries of the four experimental conditions above, it seems clear that students and youth responded in different ways to their participation in the Adolescent Diversion Project. Although the results discussed above are preliminary and follow-up data needs to be collected and analyzed, it is clear that multivariate studies add a great deal to a detailed understanding of the impact and interrelationships of TSI components of a nonprofessional program. A continuum of results was often observed in this study. The Hi-Intensity groups and especially Hi-Action did the best with the youth and felt the most positively about the experience, followed by those in the Lo-Small group and finally those in the Lo-Large group. Yet, as observed in the present research, consistent relationships cannot be assumed. For example, although youths in the Hi-Relationship condition did comparatively well, students did not implement the interventions in the manner they were expected to (such as performing more communication and relationship building techniques than the other groups). In addition, although Hi-Relationship students almost always performed the least amount of specific intervention tactics and Hi-Action students implemented the greatest amount, youths in the

two groups did about the same. As well, while Lo-Large and Lo-Small groups did about the same amount of intervention activities and had similar attitudes, the Lo-Small youth did better on outcome measures and the Lo-Small students rated the course (TSI) experience as being more positive.

It appears that highly specific contents of training/ supervision, combined with close, careful monitoring of cases, done in small classes and on a weekly basis, are crucial components of a successful nonprofessional program working with delinquent youth. Furthermore, the specific behavioral and advocacy skills taught to the Hi-Action group seemed to give these students a feeling of having both an arsenal of techniques they could rely on once the relationship was established and also unlimited access to the youth's environment. Therefore, students seemed to have the most positive experience with delinquent youths and the project in general when these skills were taught to them.

Note of Caution and Future Research Directions

Obviously final results and conclusions must be interpreted with caution, for there were a number of unanswered issues as a result of this study. First, this research was considered exploratory in nature and was developed in order to begin to differentiate the often confounded components of a TSI nonprofessional program. The importance of exploratory research, its potential for aiding in hypothesis generation and the resulting impact in increasing understanding in

the area of nonprofessional TSI programs can not be overemphasized. In terms of future research, replications of this study, using larger Ns are needed.

Second, long term follow-up data was not included in the present study. Long term follow-up will be included as part of the ongoing project in order to assess impact over time. More definitive conclusions about the results will be possible in about two years.

Third, a multivariate analysis of variance should have been performed, for the measures used were correlated with each other. Although this statistical procedure was not available, all measures were developed and used in such a way as to maximize their orthogonality. Thus, given the statistical properties of the measures and the way in which the results have been interpreted, appropriate levels of caution have been taken.

Fourth, this was the first time that both the Hi-Relationship and the Lo-Intensity conditions had been used in this particular format and context. The Hi-Action condition, except for some small revisions (weeks four and six in the training manual were new practice assignments) had been used several times before. Since there are very few detailed and packaged TSI programs in this field, the development and systematic evaluation of these new programs has great potential. In the future, several other TSI strategies might be developed and compared to those used in this study, in order to further eliminate some of the confounding variables. For example, a condition might be added which has weekly supervision but like the

Lo-Intensity groups has no specific content or training skills. Other possibilities might be the development of low intensity forms of Hi-Action or Hi-Relationship or a combination of the relationship skills and the behavioral contracting/child advocacy skills training in one TSI package.

Fifth, trainer/supervisors were nested within training conditions and thus provided a potential confound in the results. However, this nesting allowed for stricter control on possible overlapping and confounding of conditions and also permitted individuals who were committed to a particular TSI strategy to invest their energies in that one model. While the effects of the confounding cannot be specifically determined, checks that were taken of students' perceptions of their supervisors showed the supervisors to be fairly equivalent. Future research might include using the same trainer/supervisors to teach all conditions.

Sixth, assignment to condition was random and not based on student preferences for a particular type of training model. No measure was taken of student preference in this particular population. Random assignment to condition was felt to be a crucial component in this research, for typically volunteers have no choice in what model they are trained in and there is only one available. Furthermore it was felt that restricting and minimizing the students' knowledge of other TSI conditions would help to minimize comparisons and lack of adherence due to disappointment about not being in another group. Future research might examine how giving students the opportunity

to choose which model they want to participate in influences youth outcome and students' feelings about the project experience.

Seventh, unlike a typical nonprofessional program where only one TSI strategy would be used, four were used and many students became aware of differences in other groups. Yet, this was felt to be the best, most feasible way of comparing different TSI models within the same volunteer and target populations. Furthermore, while the use of four TSI programs in this study might affect external validity, in terms of how each condition might work separately in another setting, it is important to note that the internal validity of this study is not at issue. In the future these TSI strategies should be used separately and in combination in other settings, with other volunteer and target groups.

Implications and Conclusions

The results of this study indicate that specific nonprofessional interventions with delinquent youth can be useful in aiding the youth to maintain the status quo at school and to eliminate further contact with the judicial system. There is also the potential for student volunteers to gain a great deal from their involvement with such a target group. Specifically, the results of the present study indicate that the type of TSI strategy that the volunteer participates in may well affect not only the success of the target but also the personal satisfaction, attitudes, morale, etc. of the nonprofessional.

Nonprofessional workers have frequently been lauded for the high level of enthusiasm, excitement and motivation that they bring to their volunteer situation (e.g., Durlak, 1971). However, as has been shown by this study, their initial feelings may be dampened by a number of factors, including infrequent supervision sessions and feelings of not having the necessary skills. The "natural" helping skills that the volunteers brought to the experience did not seem to be sufficient for promoting youth success on outcome measures in this setting. The provision of specific theoretical constructs and a treatment model, as well as an intense supervision component, seemed beneficial to the volunteer's work with the youth. Those students who were given the freedom to try out any approach that they wanted, who were not given a specific theoretical foundation and were supervised infrequently, were not as successful.

Observations about the relative effectiveness of different contents (treatment models and theoretical positions) of TSI can be made on the basis of the present study. As expected from their TSI model, Hi-Action students did more behavioral contracting/child advocacy activities than any of the other groups and their success with the youth might be attributable to this. Hi-Relationship students performed relationship activities at a level comparable to all other groups. Their intervention activities as a whole were characterized not by what they did, but by what they did not do, since they remained within the bounds of the one-to-one relationship with the youth and did not intervene in other systems (Kantrowitz et

al., 1978). Yet, these two groups, performing quite differently in the intervention period, had about the same impact on the youth. This raises questions about whether the relative success of the youth in the Hi-Intensity conditions can be attributed to the highly specific content of the two strategies (what they actually did) or to the structure, role specificity and intensity these specific contents provided along with the weekly supervision sessions held in small classes. This partly supports Durlak (1971), who suggested that the formulation and specification of a role for the nonprofessional was crucial for successful implementation of a program. The Lo-Intensity groups, not provided with specific content, structure or role, did a little of many types of intervention activities in a seemingly random, unplanned way. Although the intense six to eight hour a week intervention with the youth was consistent across conditions, the lack of a specific model and structure of training was associated with less successful youth outcome in these conditions. Further research needs to be done to tease out some of the still confounded components, such as the content, structure and intensity of the TSI strategy.

In terms of the debate in the literature concerning what type of skills, social or technical, should be provided and in what combination (Korchin, 1976), it should again be noted that all project groups provided a comparable level of relationship activities ("social") and this level significantly increased over time. As numerous researchers have noted (e.g. Rappaport et al., 1971) college students

do seem to have a fairly high level of social skills at their disposal. These skills were used in the interventions with the youth. It may be that to implement an even higher level of these activities, at a more technical level, a longer training period than what was provided is needed. However, professional mental health workers have typically found that building therapeutic relationships with delinquent youth is difficult and frequently not successful (e.g., Grey & Dermody, 1972), which questions the utility of teaching only these skills to nonprofessionals. Yet, it must be noted that while Hi-Relationship students became frustrated and dissatisfied over time they were relatively successful with their youth. As noted above, a more detailed understanding of how specific technical skills in and of themselves relate to outcome is still unclear from this research.

It is apparent that the choice and presentation of a specific, detailed content combined with structured, intense supervision in a TSI program serves several purposes, such as promoting excitement and enthusiasm about implementing such a model with a target youth, providing students with specific knowledge, directing their intervention activities in certain ways and promoting positive attitudes toward targets. It is likely that it also helps to allay student anxieties. Yet, the fact that volunteers and program developers are excited by the particular treatment model chosen, which may even have had success in other populations, does not ensure either its success with the chosen targets or the continued enthusiasm of the participants. Unless the intervention of the volunteer can be geared to the

specific target in the nonprofessional program the volunteers may feel frustrated, let down and disappointed. Only in vivo studies, as compared to laboratory and analogue studies, can adequately assess and evaluate the long term impact of TSI models on the volunteers and targets.

Intervention-process measures must be used to monitor intervention activities. Only in this way can one gain a full understanding of how and why/why not a program works. For example, different conclusions would have been drawn about the impact of the content used in training nonprofessionals in this study if process measures had not been used. It would have been concluded that Hi-Relationship students had performed a great deal of relationship activities, more than the other project groups, Hi-Action had done the most behavior contracting/child advocacy activities and the Lo-Intensity groups ha done little within the intervention period. The findings were not consonant with the above conclusions, for all groups did the same amount of relationship activities and the Lo-Intensity groups did a moderate amount of various techniques.

Although fairly frequent training/supervision sessions and a low supervisor/student ratio, in combination with a specific content and theory for the TSI model are not cost-effective, they lead to not only more success with the youth but a feeling on the part of the volunteers of receiving social support and of learning skills. Conter et al. (1977) concluded from the findings regarding two volunteer in court programs that careful attention needed to be

given to supervision and that explicit volunteer commitment was crucial. All project conditions in the present study had some scheduled supervision and some explicit volunteer commitment, since attendance, weekly progress reports and logs were required of all students and all were receiving course credit and a grade. Yet, it appears that fairly intense, structured training/supervision is needed, in addition to a specific content of training to maintain the student's commitment to his/her assigned youth and so that the student's feelings of frustration, disappointment and uncertainty will not affect the outcome with the youth.

On the basis of the present study, the further use of college students as nonprofessional mental health workers can certainly be encouraged, provided they make an explicit commitment (e.g. course credit and grade) and are given intense, structured training/supervision (commitment by the agency to the volunteers). Unlike professionals who typically work with delinquents within an agency, the students in this program spent six to eight hours a week in the youth's own community. Certainly there are many frustrations and hassles which come from working with delinquents for an extended period of time within their own community (as compared to volunteers working with mental patients confined to one institution). Yet, the ability of these nonprofessionals to persevere and for those receiving an intense and structured TSI model to be successful, clearly supports the view that nonprofessionals can expand the scope and range of the mental health field.

Careful planning and monitoring of nonprofessional programs is essential in order to make the program as positive and successful as possible for targets and volunteers. Agencies must be willing to invest the kinds of resources needed to do this. The importance for the agency staff to be committed to the nonprofessional program helps to clarify the type of relationship needed between professionals and nonprofessionals. Nonprofessionals need training, supervision and support both to have a more positive effect on the target and to feel better about themselves. Professionals, therefore, have a crucial role in the success of the nonprofessional program. The need for professionals to plan specific programs and to provide an intense, structured TSI strategy may lessen concern by some professionals that volunteers might not only intrude but take over their domain.

Nonprofessional programs have typically used volunteers engaging in their first mental health endeavor. The results of this study suggest that for many volunteers, particularly those not provided with intense supervision and specific behavioral/child advocacy skills, their enthusiasm, excitement,positive attitudes toward the experience, etc. will decrease over time. This is likely to occur as they become exposed to the real life situation of the targets, as they feel thwarted in their efforts to change the target and as they receive less support and supervision than they would like. These findings suggest that volunteer programs should not be for too long a time period so that volunteer "burnout" will not occur. While negative feelings about the experience need not effect

the youth, they may, particularly if the program is long. If a long intervention period is desired, it seems important that the attitudes and feelings of the volunteers be assessed and considered at various time periods and that an intense level of supervision be maintained. If the dissatisfaction and frustration are not dealt with the volunteers may not do well with their youth and may ultimately decide that they do not enjoy human service work and do not want to pursue such careers. This may actually be advantageous to the mental health field, since workers who "burnout" quickly would not be desirable. In fact some of the lessons to be learned about "burnout" as a result of lack of support and supervision should be kept in mind about professional workers. Professionals, typically working in relative isolation and with difficult case loads may also experience decline in enthusiasm, motivation and caring over time. In the long run this may be detrimental not only to the worker but to his/her clients. Thus, supervision, support and monitoring of cases appear to be crucial for all mental health workers.

The assumption or hope that nonprofessional involvement will lead to increased acceptance and understanding by the volunteers of those different from themselves (e.g., Rappaport et al., 1971) must be reconsidered in light of the evidence from this study. When nonprofessionals feel unsupported, unsure of themselves and hassled by targets, the hoped for attitude changes will not necessarily result. In fact such frustration and irritation might lead to all parts of the experience acquiring a negative valence. One must again

consider these findings in terms of the professional worker, for working with clients may not lead to acceptance, identification and positive attitudes. Workers may become distant and possibly even begin to feel negatively about those they work with. This again suggests the need for supervision and support for mental health workers.

The use of experimental conditions which were considered attention placebo groups was an important aspect of this research. The differential results indicate: (a) that youth were not treated uniformly by the court staff and (b) that program participation, with its six to eight hour a week time commitment and individual attention was not in and of itself sufficient to stabilize the youth's school performance, reduce official recidivism or make the experience a positive, constructive one for the student volunteers.

The results of this study shed much light in the area of delinquency intervention. The confusion and lack of consistency in the delinquency literature may well be due to the different types of TSI strategies used within the particular studies cited. Although all project groups performed a six to eight hour a week intervention with the delinquent youth, an amount even greater than that used in many individually focused delinquency treatments, this was not enough to ensure success. It was the addition of a specific content of TSI, along with frequent, structured TSI sessions held in small classes that achieved the most success. Thus the debate in the area of delinquency (e.g. Klein & Carter, 1976) about whether or not diversion

is a useful, effective approach as an alternative to court processing or no treatment seems to be too broad an issue. More helpful would be detailed examinations of the different, unique aspects of various diversion programs that have already been implemented in order to understand what has worked and what has not. Diversion programs can be beneficial and research such as the present study helps to address the issue of how and why such programs work.

In summary, several important conclusions can be made on the basis of the above study. First, not all nonprofessional programs have the same impact on the volunteers participating in them. In this study, nonprofessionals seemed to respond differentially to the overall experience as a result of what training/supervision involved and what the intervention entailed. Since an important goal of nonprofessional programs is (or should be) to provide a growth producing experience for volunteers (e.g. in terms of self-concept, decisions about careers, changing attitudes in positive directions) strategies that overlook or work counter to this must be reconsidered and changed. TSI strategies that provide a structured content, frequent, intense meetings and small classes have the most desirable influence on the volunteers. Obviously such structured, specific TSI strategies must be planned carefully and monitored closely.

Second, the importance of including process monitoring of the intervention activities was considered crucial, for it allowed for more detailed and accurate understanding of what occurred in the intervention and how this related to the TSI model and to youth

outcome. The use of repeated measures to assess attitude change and feelings about the project experience was also seen as important for it allowed conclusions to be made about the impact of the TSI models over time. It was found, for example, that even highly intense, specific models may lead to negative feelings and attitudes over time, especially if the volunteers feel frustrated, stymied, etc. in their attempts to implement or assess the model. Gaining knowledge about growing dissatisfaction might be helpful in deciding to make changes in the model at that time or at a future date. Systematic research using a multilevel focus is essential for understanding how the various TSI components interrelate and why a program works.

Third, as a result of varying TSI strategies there was differential impact on youth outcome. Specific, structured TSI models appeared to affect youth outcome in a positive manner. The particular content, theory and treatment approach of such a highly intense program did not seem as important as the fact that it was intense and provided a structure, format and specific role for the volunteers. Both Hi-Intensity models did better, in terms of youth outcome, than either the Lo-Intensity (Attention Placebo) groups or the Control group. These findings replicate those from an earlier diversion program (Davidson et al., 1977) where two different specific TSI models were found to be quite similar and were both much more effective than the "treatment as usual" model. Guidelines for future development of diversion and nonprofessional programs are suggested by the knowledge that (a) certain diversion programs have been successful

and that (b) the intensity of the intervention with the volunteer as well as the youth is crucial in promoting positive change.

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