A total of four approaches to teacher preparation in classroom discipline, including Gordon's Teacher Effectiveness Training, Adlerian-based approaches, Glasser's Reality Therapy, and Center's Assertive Discipline, are reviewed in this document. These systems have been widely used for inservice teacher education for a decade or more, and each has adherents and practitioners who support its efficacy; but testimony and endorsement are subject to expectation effects and other biases. School districts, teachers, and teacher educators should have better evidence upon which to base decisions about implementation of specific methods or teacher training. In addition to summarizing research on the models, the paper presents a brief description of each system. Considered as a whole, the research on the four classroom discipline models indicates that teachers (after training) frequently exhibit positive changes in attitude or in perceptions. This implies that the training programs are apparently successful in eliciting teacher enthusiasm and support and are consistent with the teachers' role expectations or preferences. The results also suggest that these systems do provide teachers and administrators with strategies for dealing with major threats to school and classroom order and they provide rational, systematic means of communication with students about expectations and consequences. The appendix offers four tables summarizing evaluation studies of the four approaches. (52 references) (KM)
Effects of Teacher Training in Disciplinary Approaches

Edmund T. Emmer
University of Texas at Austin
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Effects of Teacher Training in Disciplinary Approaches

This paper reviews research on four approaches to preparing teachers in the area of classroom discipline: Gordon's Teacher Effectiveness Training, Adlerian-based approaches, Glasser's Reality Therapy, and Canter's Assertive Discipline. These systems have been used widely for inservice teacher education for a decade or more, although their use at the preservice level has been more recent, and each has adherents and practitioners who support its efficacy. But testimony and endorsement are subject to expectation effects and other biases -- and school districts, teachers, and teacher educators should have better evidence upon which to base decisions about adoption or teacher training.

In addition to the concern about general efficacy, numerous other questions and issues are of interest to the potential user. For example: What types of educationally desirable outcomes does a particular approach produce? What components of a discipline system are essential in achieving desired results? Are the training programs offered to teachers effective in producing long-term changes in teacher and student behavior? Are the approaches equally applicable for pre- and inservice teacher education? For elementary and secondary teachers? This paper will summarize research on the four models of classroom discipline, in order to determine what is known about these and other relevant questions, and to identify areas needing further research. Before examining the evidence, however, a brief description of the four systems will be presented.
**Teacher Effectiveness Training (TET)**

TET, developed by Thomas Gordon (1974), emphasizes a variety of communication and human relations skills derived from a psychotherapeutic model (Brophy and Putnam, 1979). The approach distinguishes two types of classroom situations: those in which the teacher "owns" a problem (e.g. cannot teach effectively because of student behavior) and those in which a student owns the problem (e.g. student is upset because of a poor grade or personal problem). In the case of student-owned problems, the teacher is trained to use various listening skills in order to facilitate the students' understanding and resolution of their problems. In the case of teacher-owned problems, "I-messages" and problem solving are stressed. I-messages require the teacher to specify the problem that the student is causing the teacher. This situation leads to negotiations for a solution to the problem, so that, ideally, both the teacher's and the students' needs are met. The goal of this approach is to resolve problems in ways that are neither authoritarian nor submissive, but rather respect all parties' rights.

Other aspects of TET include avoiding barriers to communication and structuring the environment to prevent problems. The former aspect specifies a series of common responses, such as reprimands, lecturing, moralizing, or praising, that may interfere with open communication. Such responses should be avoided in situations when the student expresses a problem or the teacher is engaging the student in problem solving. Structuring the environment to prevent problems is also suggested. Teachers are encouraged to analyze their classroom to determine whether reducing, rearranging, enriching, or otherwise modifying it might avoid problems.
Teacher training in TET is often conducted by representatives of Effectiveness Training, Inc., founded and directed by Gordon, using a prescribed course outline and related materials (Miller and Burch, 1979). Typical training sessions total thirty hours, conducted in ten three-hour classes. Participants read the TET text as background for the training, which consists of lectures over key concepts, demonstrations, listening to tapes modeling desired behavior, practice of skills with other participants, and workbook exercises. Teachers may also be asked to tape-record their interaction with students to use as a basis for self-critique and feedback.

Although teacher education conducted by formally trained TET instructors is no doubt the most common inservice route, other avenues are possible. College faculty, with or without training in TET, can order the Gordon text and use it as the basis for all or a portion of a course. In such cases, of course, there is less likelihood that all components of TET will be covered or that the course activities will correspond to the recommended ones.

**Assertive Discipline**

This system of classroom discipline has as its basic premise, the right of the teacher to define and enforce standards for student behavior that permit instruction to be carried out in a manner consonant with the teacher's capabilities and needs. Teachers who do this are assertive rather than hostile or submissive. Canter (1976) describes such a teacher as:
"One who clearly communicates her wants and needs to her students, and is prepared to reinforce her words with appropriate actions. She responds in a manner which maximizes her potential to get her needs met, but in no way violates the best interests of the students."

Assertive Discipline begins with a series of actions that are directed at clearly specifying expectations for student behavior. These actions include the teacher developing a discipline plan that meets his/her preferences for student behavior. These expectations are then translated into a set of rules that specify acceptable and unacceptable behavior. At the same time, the teacher develops a set of punishments to use as consequences for rule violations. The most widely used punishment is a penalty system of names and check marks recorded on the chalk board, with detention, a note home, time out, or a visit with the principal being assigned in progression, as check marks accrue. Teachers are also instructed to identify rewards for compliance with the rule system. After receiving the principal's approval for the system, it is explained to the students and implemented in the classroom. Not all behavior is responded to using the preceding system; teachers are encouraged to first try hints, questions, directions, and demands.

Teacher training in Assertive Discipline is usually done in workshops conducted by the Canters or their trainers (Canter and Associates). However, books by the Canters (1976, 1981) as well as a number of film strips and videotape cassettes make the approach easily accessible to both pre and inservice teacher educators. A typical training course is six hours long and consists of lectures, discussions, workbook exercises, and role plays on the topics of basic concepts; roadblocks (e.g. labeling, excusing) to
effective discipline; establishing rules, consequences, and rewards; and presenting the system to students.

**Reality Therapy**

Reality Therapy is an approach to education that was developed by William Glasser (1969, 1978, 1986). It assumes that behavior is the result of choices, and that inappropriate and disruptive behavior derive from poor choices made by students. Poor choices occur because of failure in one or another form, and because students do not think through the consequences of their actions. Persons who fail develop maladaptive identities through withdrawal or delinquency. The teacher's task is to help students make good choices by making clear the connection between student behavior and its consequences. The teacher also needs to develop a classroom in which students can succeed and which supports good choices, and in which memory tasks are de-emphasized and critical thinking is stressed. The grading system also needs restructuring, according to Glasser, in order to decrease failure. Glasser's principles are operationalized through the use of class meetings, clear specification of rules and associated consequences, the use of plans or contracts, and a series of steps to guide the teacher's actions when dealing with problem behavior.

Class meetings are used for several purposes: they help the teacher become involved in the concerns and lives of the students, they are used to solve problems, and they help students learn to think about and take responsibility for their own behavior. Meetings can focus on social problems, on educational matters, or be open-ended. Glasser recommends
that they be frequent—as often as daily in elementary school and two or three times per week at the secondary level.

Classroom rules should be clearly stated and developed with students. Violations of rules should be followed by consequences, and the teacher should make the connection clear. Students who continue to misbehave are dealt with using a prescribed series of steps, including getting the student to admit responsibility for the behavior, using whatever consequences have been specified and requiring the student to develop a plan for change. Students who repeatedly misbehave are removed from the classroom until they develop a satisfactory plan. The use of Reality Therapy by individual teachers will probably be enhanced by school-wide adoption of the approach, because consequences for repeated misbehavior and temporary removal from the classroom may need to be coordinated with the principal, counselor, or others in the building.

A variety of teacher training materials, in addition to books by Glasser, are available. These materials include film strips, films, and video cassettes, which illustrate applications of Reality Therapy, elaborate the concepts, or present the basic components of the approach.

Adlerian Approaches

This approach to classroom discipline emphasizes understanding the individual's reasons for maladaptive behavior. The basic conception is based upon Adlerian principles of individual psychology as interpreted by Dreikurs, Corsini, and others: Individuals develop identities within their social groups (e.g. family, community, school) that help them satisfy the basic needs of love and belonging. When they are unable to meet their basic needs
in constructive, socially acceptable ways, students turn to maladaptive behaviors, such as attention seeking, engaging in power struggles, revenge, or withdrawal. When dealing with a student who exhibits inappropriate behavior the teacher's task is to diagnose the problem, to avoid unknowingly reinforcing it, and then to help the student find constructive ways to get his or her needs met. Teacher strategies include helping students understand the reasons for their behavior and skillful use of natural and logical consequences.

Order is achieved through rules and limits that are determined by the group. The teacher's role is that of a leader who guides and wins cooperation rather than one who dominates and punishes. An essential aspect of the approach is the skillful use of group discussions, which have the goals of helping students develop a positive sense of belonging, of solving problems, and of enhancing learning.

Dreikurs' system is described in a variety of books for teachers: Dreikurs (1966), Dreikurs, Grunwald, and Pepper (1982); Balson (1982). Other teacher training materials are available on film, filmstrip, or videotape cassette; a list is supplied in Wolfgang and Glickman (1986), pp. 103-106.

Applications of Adlerian principles to school-wide development have been made using the title: Cursini Four-R Schools (formerly called Individual Education Schools). In these schools students are encouraged to make responsible choices about learning and behavior, using a number of strategies. Upon entry, students are tested and provided with feedback so they can choose where to begin their studies in the individualized program. Students are allowed choices of how to proceed in their academic program, but mastery of units is required before starting new units. Class meetings
are conducted as part of homeroom periods that begin and end the day, and students also participate in a "small group" within the homeroom to encourage discussion. Three rules govern behavior school-wide, and a specified series of non-punitive steps are used to deal with rule violations. The teacher's role in carrying out the school and classroom discipline plan is very carefully delineated, and is designed to maximize the time available to teach. Information about this approach is available in Corsini (1985) and in publications of the North American Society of Adlerian Psychology.

Methods

Data sources for this review were articles, reports, and papers describing the results of research or evaluations of the four approaches. References were sought by searching several data bases: ERIC, Dissertation Abstracts, and the School Practices Information File. In addition, letters were sent to directors of research and evaluation in 120 school districts in the U. S. and Canada, requesting information about pertinent evaluation studies that might have been conducted in their districts. Similarly, letters requesting relevant reports were sent to developers of three of the systems under study (Center, Glasser, and Gordon). Most of the studies identified by this process were dissertations projects. Surprisingly, only a few of the school districts reported evaluation research on the models, in spite of their widespread use (e.g., estimates cited in the literature indicate over 300,000 teachers trained in the use of Assertive Discipline).

Once obtained, each study was read and summarized (see Tables 1, 2, 3, and 4). Basic information in the tables includes the number of teachers participating in the study and their level (elementary, secondary, student
teachers, etc.). A short summary of study procedures is provided, along with a specification of the type of research design. Most studies were one of three types: single group, with pre-post assessment; or 2 group experimental (E) vs. control (C) comparisons, with or without randomization.

Results of the studies are presented separately for teacher outcomes and student outcomes. Significant differences are noted in the table by a + (if a difference for the outcome measure is statistically significant at the p < .05 level), by an NEG (if the difference favored the comparison group), or a 0 (no difference); NA indicates that a significance test was not reported. Effect sizes were calculated by computing the difference between the experimental and control group means, or the pre-post difference, divided by the standard deviation of the measure. Effects were considered small if they were less than 1/2 standard deviation, moderate if they were between 1/2 and 1 standard deviation, and large if greater than 1 standard deviation; these effects are noted as S, M, and L in the tables. In most cases effect sizes could be determined directly or by calculation from the report's results; in a few cases, noted NA, data were insufficient to estimate the effects. The purpose of presenting effects is to convey an idea of the amount of difference a treatment might make. Significance tests, of course, do not do this. A highly significant result could be obtained for a small effect if a study used a large sample, while a small sample study might produce a moderate or large effect and yet not be significant. In the tables, effects are reported, except for the case when a non-significant difference was found and the effect size was small.
Results for TET

A summary of results for research on Teacher Effectiveness Training is given in Table 1.

All studies that examined the effects of TET training on teacher behavior or attitudes found significant changes from pre to post, or between E and C groups after training, on at least one teacher variable, although not all results were consistent: for example, two studies (Dillard, 1974; Walker, 1982) found no effects on the Minnesota Teacher Attitude Inventory, while Chanow (1980) did find a significant increase from pre to post, using the MTAI.

Only three studies (Dennehy, 1981; Biume, 1977: Thompson, 1975) used direct observation of teachers to determine whether TET skills were actually used after training: All studies found that some utilization did occur. In the case of both teacher attitudes and behavior, the results of the studies support the conclusion that TET training can change teacher attitudes and behavior in a direction more consistent with the assumptions of the TET model: toward a more democratic view of the use of authority and more concern for student perceptions and feelings; and toward behavior that reflects acceptance of students.

The case with regard to effects on students is not as convincing. To begin with, only four of the studies examined possible impact on students (Dennehy, 1981; Laseter, 1981; Thompson, 1975; Chanow, 1980); and among the four studies the results are mixed. Dennehu (1981) found significant effects on only one of five observed student behaviors, and in only one of the two E groups. Thompson's study (1975) used a double reversal design to assess the effects of I-messages on disruptive behavior in two classes. In only one class was a possible effect detected (compared to the use of
reprimands), and even in the other class a functional relationship between use of I-messages and a decreased rate of disruptive behavior could not be firmly established.

The strongest results for effects on students appear in Chanow (1980) and Laseter (1981). Chanow found that students of teachers trained in TET significantly increased their evaluations of their teachers (e.g. on general impression, interest, competence) more than did students of teachers in a comparison group. However, teachers in the TET group were volunteers, so of this self-selection bias is a serious limitation. Laseter’s results have the same limitation. In his study, some teachers (but not a randomly assigned group) received TET training while others did not. Laseter found significant differences in achievement gains of students, related to the number of classes taken from TET trained teachers. Students having more classes with TET teachers gained more on CAT reading and math achievement than students having fewer classes whose teachers had received TET training. As with the Chanow study, teacher self-selection into training contributes an unknown amount to the effect; also, the absence of separate results for math and reading-relevant classes and of observation of teacher behavior further limits our ability to interpret the results.

Thus, TET training was shown in most studies to have discernable effects on teacher behavior or attitudes. Effects on students are less convincing, in part because fewer studies examined student outcomes; in part because student results were less consistent. For all studies of TET, the absence of random control groups further limits confidence in the results, as does the general lack of follow-up studies, beyond the immediate post-testing.
Summary of Results for Reality Therapy

A summary of studies of Reality Therapy can be found in Table 2. The most thorough evaluation of Reality Therapy was reported by Masters and Laverty (1977). In this evaluation, 5 matched pairs of schools in a Pennsylvania school district were identified and randomly assigned to an experimental or a control (actually, a delayed treatment) group. E teachers and their students were assessed after one and after two years of implementation, and then were compared to the control group teachers and students at the end of their first year, before this latter group participated in RT training. Effects on teachers were assessed by classroom observations, which identified important differences in some (but not all) classroom instructional behavior -- e.g. greater amounts of questions and acceptance of student ideas, but no differences on acceptance of feelings. Two teacher scales measuring attitudes consistent with the RT philosophy revealed no significant group differences. Other data, however, indicated that many teachers were implementing RT methods; e.g. conducting class meetings. Effects on students were, for the most part, not found. Student achievement and attitude scores (except one subscale for part of the sample) showed no between group differences. The only student effect noted was on referral rates, with the C group rate being nearly twice the E group's rate. This latter result has many possible interpretations: it could mean that a substantial improvement in behavior had occurred as a result of the use of RT methods. It could also mean, as the authors point out (p. 43), that teachers became more adept at handling the problems in their own classes. It might also simply indicate an administrative difference in
handling problem behaviors, rather than either an improvement in student behavior or an increase in teacher capability.

An evaluation of a long term project using Reality Therapy is reported by the Johnson City (NY) Central School District (undated). Between 1972 and 1984 this district's programs were extensively redesigned, with RT as a major component of the model. Substantial improvement in math and reading achievement was found using both cross-sectional and panel data, between 1976 and 1984. How important a role Reality Therapy played in the effects cannot be determined, because of the absence of control groups and the lack of documentation of implementation of the various components. However, the application is worth noting because it does suggest that RT can be combined with program renewal efforts so that, as a whole, the program produces positive effects.

Five other studies examined the effects of RT using a pre-post, E vs. C design, although none of these studies used random assignment to groups. Welch and Dolly (1980) in a study of elementary classes, found no evidence for effects either on teacher or student variables. Although the teacher behaviors did not seem to match very well with RT objectives and therefore might not be a good test of program effects on teachers, the student behaviors were very appropriate (i.e., on-task behavior, discipline referrals, absence rate). Browning (1978) conducted a similar study in 8th grade classes and obtained mixed results. RT trained teachers developed more positive attitudes toward school and discipline concepts than comparison group teachers; students of RT trained teachers also developed more favorable attitudes, and also gained more in GPA over the course of the study (a six-week period). This latter result could be a function of changes in teachers' grading policies during the study, rather than due to improved
achievement. Contrary to expectation, there was a slight increase in
disciplinary referral rates in the E group and a substantial decline in
referrals in the C group.

Matthews (1972) studied the effects of Reality Therapy in four
elementary classes over a five month period. Treatment implementation
was monitored by taping class meetings. No significant student
differences between classes of RT trained and untrained teachers were
found on either the Metropolitan Achievement Test or on subscales of the
California Test of Personality. Fewer behavior problems were reported by
teachers in the trained group; however, the lack of independent validation
(for example, via direct observation) and the fact the the teachers were
aware of the nature of the study, makes the result unreliable. Houston-
Slowik (1982) found a moderate reduction in anxiety and an increase in
academic interest for students in two junior high classes whose teachers
utilized Reality Therapy for 11 weeks, compared to two classes in a
"matched" school. However, the small number of teachers and the lack of
randomization limit this study. Cady (1983) found substantial increases in
MTAI scores and in measures of knowledge and ability to use RT concepts in
groups given RT training in a summer course. A follow-up assessment three
months later showed that much of the effect persisted. No assessment was
made of whether classroom behaviors of the teachers or students were
affected by the training.

Most of the other studies examined the behavior of a single group of RT
trained teachers or their students across baseline and treatment
implementation phases. Moede and Triscari (1985) found evidence for a
substantial drop in disciplinary referrals in four elementary schools whose
teachers were given Reality Therapy training. However, it is not clear
whether these results are a function of RT or of other programs in the schools; in addition, it is not clear whether the drop in referrals represents a change in student behavior, or if it is a result of an administrative change in the way the schools handle student behavior problems.

Several studies used RT concepts and class or group meetings to address specific problem students and their behavior. These focused applications appeared to be effective, at least in terms of producing immediate effects. Marandola and Imber (1979) demonstrated a sharp reduction in student arguing after a series of class meetings focused on this issue. Bang (1974) showed that using RT strategies with highly disruptive students was effective in substantially reducing their problem behavior and increasing their desirable behavior; this effect persisted for at least several weeks after the end of the direct treatment phase.

Brandon's (1981) study of the effects of RT on absence rates was conducted using counselors, instead of teachers. It is worth noting for several reasons. First, by using random assignment of chronically absent students to E and C groups, the design permits more confidence about causal inferences. Second, the results showed a significant effect on absence rates, which persisted one month after the end of the group meetings (but not for two months). However, no effect was noted on students' locus of control, which may help explain the loss of effect two months after treatment. A similar study by Atwell (1982) also used RT as the basis for counseling four highly disruptive students. Follow-up classroom observations of these students indicated significantly improved on-task rates.

In summary, all of the studies of Reality Therapy that assessed effects on student variables, with the exception of Welch and Dolly (1978), showed
at least one student outcome that differed significantly for the E and C
groups or from pre to post. Only a few of the studies attempted to assess
effects on teacher behavior or attitudes. Findings were mixed, with two of
the studies indicating large effects on various attitudes, while two other
studies found little or no effect on teacher behavior. In general, the
monitoring of implementation after training was weak, with numerous
studies providing no evidence of teacher use. Applications of Reality
Therapy ranged from its use in the modification of disruptive behavior of
selected students to its incorporation as a component in a longitudinal
design of a school district's programs. The two evaluation studies that
suggest long term effects (Johnson City, undated; Moede and Triscari, 1985)
did not use control groups nor was Reality Therapy's effect separated from
other program components. Unfortunately, a better designed and more
extensive evaluation (Masters and Laverty, 1977) found no effects on student
achievement and very little evidence for effects on student attitudes.
Although the RT schools in this study did have substantially lower numbers
of disciplinary referrals, the finding, as noted earlier, has multiple
interpretations.

Summary of Results for Assertive Discipline

Studies of the effects of Assertive Discipline (AD) training are
summarized in Table 3. Most of these studies focused on effects on
teachers, and most of these effects were assessed by questionnaires rather
than direct observation of classroom behaviors. Barrett (1985) found no
change in student teachers' pupil control emphasis, anxiety, or concern level
as a result of AD training. However, Henderson (1982) found that AD trained
teachers had less custodial concepts of pupil control and a more internal
locus of control, although he did not find that these teachers had more positive self-concepts or assertive personality characteristics. Other studies (Bauer, 1982; Ersevas, 1980) indicated substantial effects on teachers' perceptions of various aspects of discipline problems. Only one study of teacher perceptions found no effects. Kundtz (1981) reported no significant differences in the self-reports of management skills of teachers trained in Assertive Discipline, compared to teachers who, as a group, had little exposure to AD.

Effects on teacher behavior were assessed in only two studies, both of student teachers. Furthermore, these studies used ratings rather than direct assessment of specific behaviors. Barrett and Curtis (1986) found small, though significant effects, and Smith (1983) noted moderate effects on supervisor ratings of student teacher performance in the area of management and discipline. Unfortunately neither of these latter two studies examined possible effects on student behavior, nor did the studies identify what specific behaviors were affected by AD training.

Those studies that included measures of student behavior produced results which were decidedly mixed. Sharpe (1986) found no between group differences for student achievement, and two studies found limited or no effect on referral rates or suspensions (Bauer, 1982; Vandercook, 1983). Similarly, Kundtz (1983) found no effect for AD training on teacher reports of student behavior problems. Terrell (1984) carefully matched 11 schools using AD (generally for two years) with 11 other schools. Comparisons of the schools on several student variables showed no significant differences on truancy rates, referrals, detentions, and suspensions, except for a significant drop in the number of in-school suspensions from 1983 to 1984. However, a moderate (but nonsignificant) effect favoring the non-AD
schools was noted in the number of disciplinary referrals and detentions.
Positive effects on student behavior were reported in only two studies.
Ward (1983) found a significant pre-post change in the frequency of teacher
reported disruptions after teachers received AD training. The absence of a
control group and the lack of validation of the measure of teacher perceived
disruption make conclusions based on these data tenuous. McCormack
(1985) found lower rates of off-task behavior in AD-trained teachers'
classes. However, the teachers were not observed before AD training and
random assignment was not used. Consequently, although statistical
controls were used to equate the groups on several variables, including
student reading ability and teacher qualifications, the possibility that the
teachers were better managers before AD training cannot be ruled out.
Certainly the result needs replication. More generally, studies of AD would
do well to use direct observation of both teacher and student behavior to
assess effects.

In summary, studies of Assertive Discipline show consistent evidence of
effects on teachers' perceptions of various aspects of discipline, including
reduced problem behaviors. However, the evidence suggests only a small
effect on teacher behavior itself. Evidence for effects on student behavior is
mainly negative; that is, many more studies found no effects than found that
AD training resulted in improved student behavior.

Summary of Research on Adlerian Approaches

The research literature on uses of this approach by teachers and schools
is very sparse. In fact, some of the items shown in Table 4 qualified for
entry only by a very broad interpretation of the meaning of research.
Evaluations of effects of Adlerian programs on teachers were done by Cady (1983) and Willingham (undated). Willingham found, in a follow-up survey of individuals trained in Adlerian principles, that all respondents (1/3 of his sample) could describe specific examples of the successful use of the approach in their subsequent work. In the study by Cady (see also the description in the Reality Therapy section), teachers participating in an eight-day summer workshop made significant gains on the Minnesota Teacher Attitude Inventory, in the direction of a student-focused, non-authoritarian perspective, and on tests of knowledge and application of Adlerian concepts. These gains had diminished only slightly after three months, indicating a reasonably permanent change had taken place. Self-selection of the teachers into the instructional groups poses a threat to internal validity, particularly because the control group classes had somewhat lower MTAI scores on the pre-test. However, the Adlerian groups' gains were substantial, compared to no gain in the control groups, even after statistically partialling out initial differences among participants. It should be noted that the Adlerian groups' gains were not as great as for teachers in the Reality Therapy groups; however, this effect was small compared to treatment vs. control group differences.

Studies of effects on student achievement and attitudes are reported by Pratt (1985), Kozuma (1977) and Krebs (1982). However, these studies are single-site case studies of applications, and even when data from a comparison school is presented (e.g. Krebs), the absence of pre-test data makes meaningful comparisons impossible. In Krebs' report, two separate evaluations are reported. In one, a researcher administered the Barclay Climate Inventory in an Individual Education (i.e. Adlerian) elementary school and in a "traditional" elementary school. The reader is told that the
comparison school students were "similar in terms of age, grade level, family socioeconomic status, racial and ethnic backgrounds..." and that teachers in the two schools had similar levels of tenure, education, and training. Unfortunately, supporting data are not presented, nor are conditions of test administration described. Krebs' study of achievement differences indicated that one year after returning to traditional schools, students who had been in an IE school for one year had greater gains than their control group counterparts. This result has several interpretations, however, because the control group students did not differ from the experimental group at the end of the IE year (i.e., the differential gain occurred when both groups were in non-IE settings) and because no pre-IE achievement data were presented to demonstrate group equivalence.

Thus, although frequently described as a disciplinary strategy for teachers, the Adlerian approach is greatly in need of better evidence corroborating its effects on teachers and students.

Discussion

The preceding sections of this paper have described four approaches to classroom discipline. Each of these approaches provides teacher training activities designed to help create a well-managed classroom. In this section of the paper, the research on these approaches will be discussed in order to consider implications for practice and for further research.

Considered as a whole, the research on the four models provides strongest evidence for positive effects on measures of various teacher attitudes and perceptions, such as are assessed by the Minnesota Teacher Attitude Inventory, the Pupil Control Ideology inventory, and teachers'
reports of classroom behavior problems. The studies of Reality Therapy and Teacher Effectiveness Training are most convincing with regard to teacher attitudes and research on Assertive Discipline is strongest in the area of teacher perceptions. Less frequent and weaker effects were noted when the outcome measures were teacher behaviors, although TET studies, particularly, did find at least short term gains in this area. Overall, fewer studies attempted to assess teacher behavior, and when they did so, generally smaller effects, or nonsignificant ones, were found. This finding for teacher behavior indicates, at the very least, a need to monitor teacher implementation more closely and to study those factors that may impede or facilitate program adoption and use.

Effects on student attitudes and behaviors were also less frequently noted than were effects on teacher attitudes and perceptions. The strongest effects and most consistent ones were noted in several studies of Reality Therapy that were directed at specific groups of students exhibiting inappropriate behaviors before treatment. Evidence with regard to effects on long term student behavior change and on student achievement is least convincing, in part because relatively few studies have examined these outcomes and also because studies reporting positive results tend to be methodologically weaker than studies reporting no effects.

The finding that teachers, after training, frequently exhibit changes in attitudes or in perceptions has several implications. One is that the training programs are apparently successful in eliciting teacher enthusiasm and support, and to a considerable extent, are consistent with the teachers' role expectations or preferences. The result also suggests at least a degree of willingness by the teachers to attempt implementation. It is worth noting though that assessments of teacher attitudes with instrumen
as the MTAI or Pupil Control Ideology did not always produce significant effects. Thus the degree to which a shift in fundamental values is required by an approach may be a limiting factor in the extent of implementation.

Of the four approaches, Assertive Discipline would seem to require the least cognitive and attitudinal restructuring for most teachers (with the exception of either very non-assertive or very child-centered persons) and also the least change in typical classroom practices (e.g., most teachers already have rules and most have consequences). The other three approaches would appear to require a greater shift in values and in classroom practices in order to be fully implemented. Both the Glasser and the Adlerian programs place great emphasis on the frequent use of classroom meetings, and their conduct requires a considerable degree of skill. Such requirements may make unsupervised use a risky undertaking. In a similar vein, TET advocates a problem solving orientation to deal with student-caused problems. This approach, too, requires considerable interpersonal skill, especially in a group (class) setting; it also may require a different perspective on student caused problems than many teachers have.

The length of the training programs may be a reflection of a model's dissonance with typical practice: Assertive Discipline generally requires only 6 hours of training, while TET and Reality Therapy involve substantially more (30+ hours). Even with extended training it is plausible that teachers may falter during the implementation phase unless they are provided added support and training, a practice that received little research attention in the reviewed studies.

Nearly all the research reported on the impact of a total program, whereas only a few studies examined specific program components' (e.g., I-messages, classroom meetings) effects. The global approach has the
advantage of providing an estimate of over-all impact, but it offers no information on how various aspects of the program contribute to the total effect. Neither does it offer insights that might be helpful in program improvement. Consider, for example, if more research had been conducted of the same type as Thompson's (1975) study of the TET I-message component. Thompson found that, with elementary students emitting high levels of inappropriate behavior, the I-message strategy was only marginally effective. Follow-up studies might have led to the development of modifications of I-messages or to alternative procedures that would be more effective, and to a greater understanding of contextual dimensions that enhance or interfere with I-message effects.

Focusing exclusively on the effects of the total program inhibits the accumulation of data that would lead to re-design. Thus, there is a static quality to these models, and the user is left with the option of electing or discarding the whole approach, or "free-lancing" a variation without a substantive base for the modification. A more "micro" research design and qualitative methodologies would permit re-design within the context of the over-all program, and might also lead to more adaptive models. For example, rather than assess only the effects of a program on teacher attitudes or student behaviors, researchers could observe teachers during early and later phases of implementation, using naturalistic observations and interviews to identify and document program components that teachers and students are able to utilize easily and those which are problematic and in need of modification.

The content of the training programs themselves have received very little research attention. For example, studies do not report the teachers' perceptions of different training activities nor are variations of a training
model compared. Also, the context in which the training is embedded is given scant attention. For example, studies of student teachers have not considered the effects of the cooperating teacher's perceptions or use of the model under study, a factor that would surely have important effects on the student teacher's ability to implement a program. More generally, preservice teacher education is in this body of research. Another contextual feature that needs greater consideration is the school setting, including factors such as the degree of administrative and collegial support for adopting an approach, the type of school organization, and characteristics of students attending the school.

Only one study (Cady, 1983) was found that compared two of the approaches. The absence of other comparative studies and the great variety of teacher and student outcome variables that were used preclude conclusions about one or another program's superiority. Examining the results for the total set of studies, it is apparent that the net effect of the approaches is positive, and that there are virtually no studies indicating negative effects for the programs. Thus one could conclude that these programs represent an improvement over "traditional" classroom methods.

Rather than simply conclude that any of the models represents a net improvement and that more research is needed, a more critical view is offered. In varying degrees, these approaches focus on guiding student behavior through rule clarity, use of consequences, and a variety of communication strategies to gain student commitment to change. To a considerable extent, they are concerned with managing and correcting problem student behavior. While this focus is an important one, it does not encompass the full range of the teacher's role in creating and preserving order (e.g., Doyle, 1986).
Effective discipline requires, in addition, that considerable attention be paid to classroom management, as well as to instructional functions, to preparation and to planning. To cite two examples, recent research has highlighted the importance of the initial phases of the school year in establishing a classroom setting that facilitates appropriate behavior and that prevents problems. Also, Kounin's research shows the importance of "movement management"—the degree to which a teacher keeps activities on track and prevents interruptions from slowing down lessons—in promoting high rates of student on-task behavior and freedom from deviancy. These examples suggest that discipline will be enhanced by teacher attention to planning, preparation, and the conduct of activities at the beginning of the year, and to strategies for conducting activities in efficient, interesting, and comprehensible ways. Such concepts are not addressed by the four discipline training models, except in very limited terms. Yet it is through such concepts that teachers can prevent much misbehavior and thus reduce their reliance on "disciplining" students. Therefore, this review's inability to find strong evidence for effects on student behavior may not be so much the fault of weak research designs and limited measures of student outcomes as much as the failure of these systems to address the day-to-day classroom management skills needed to engage students in productive activities and to prevent minor problems from becoming major ones.

These systems do provide teachers and administrators with strategies for dealing with major threats to school and classroom order and they provide rational, systematic means of communicating with students about expectations and consequences. These features may help explain the positive effects noted when specific types of problem students or behaviors were targeted for treatment. Therefore, future research might
Identify the role one or more of these models could play in a comprehensive system of classroom management and discipline.

Further research would improve our understanding of these models' effects if consideration were given to the issues discussed above. In addition, the following recommendations are made:

- School districts using these models should conduct more research on them, especially of processes involved in implementation. Attention should also be given to identifying context factors and to assessing student outcomes (not just teacher beliefs and perceptions), in order to determine what type of program works best, with what types of students, teachers, conditions, and schools.

- Follow-up studies are needed to identify long term effects, types of adaptations that are made, and also to identify reasons for continuing to use or for discarding a model.

- Stronger research designs are needed. For large scale evaluation studies, the use of randomization between treatment and comparison group teachers, or at least the use of a well matched comparison group, would be much preferred over the one-group, pre-post design. For studies involving small samples of teachers, more observation in baseline and follow-up phases, and better naturalistic description of the classroom and school context is needed to clarify the use and effects of a model.
References


TABLE 1. SUMMARY OF TET STUDIES

<table>
<thead>
<tr>
<th>Study</th>
<th>Subjects</th>
<th>Procedures</th>
<th>Design</th>
<th>Teacher Measure</th>
<th>Siga</th>
<th>eff.</th>
<th>Student Measure</th>
<th>Sig eff.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker 84</td>
<td>Student E groups received a 24 hour TET course at the beginning of student teaching. The C groups received variations of traditional student teaching supervision and seminars. Group differences were evaluated for the Minnesota Teacher Attitude Inventory (MTAI) and the Rokeach Dogmatism Scale.</td>
<td>E: Pre-Teacher attitudes Post MTAI</td>
<td>0</td>
<td>-</td>
<td>NONE</td>
<td>E group STs were volunteers. Pre-test differences among the groups on the outcome measures were small and nonsignificant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1982) (Elem)</td>
<td></td>
<td></td>
<td>C1 &amp; C2: Dogmatism Pre-Post (not random)</td>
<td>+</td>
<td></td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dennehy 18 T</td>
<td>Two groups (n=9) received 30 hours of TET training over 10 weeks. Classes were observed using Flanders' Interaction Analysis (IA) and Spaulding's Coping Analysis for Educational Settings (CASES)</td>
<td>E1: Pre, Flander's IA. Post, Observed behavior: Follow-up Accepts feelings +/0 L Self-directed 0 - Tendency toward opposite effects in E1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Laseter 22 T</td>
<td>Teachers received 30 hours of TET training; an unspecified number of teachers were untrained. For each student, the number of classes taught by a TET-trained T was the predictor; adjusted student gain on the Cal. Ach. Test (CAT) over a year was the criterion.</td>
<td>E: Pre- None Post</td>
<td></td>
<td></td>
<td></td>
<td>Student Achievement</td>
<td></td>
<td>Statistical controls for entering achievement, grade, race, sex, and SES.</td>
<td></td>
</tr>
<tr>
<td>(1981) (7th - 8th)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CAT Reading + NA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CAT Math + NA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(Table I continued)

<table>
<thead>
<tr>
<th>Study</th>
<th>Group</th>
<th>Description</th>
<th>E: Group</th>
<th>C: Group</th>
<th>Attitude</th>
<th>Student</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ewing</td>
<td>30 Ts</td>
<td>received 30 hours of TET training over 7 weeks. Post-tests were given one week after training concluded.</td>
<td>Teacher Attitudes</td>
<td>+</td>
<td>L</td>
<td>NONE</td>
<td>Control teachers were volunteers from the same district, similar to E group in sex and age, but with more teaching experience.</td>
</tr>
<tr>
<td>Chanow</td>
<td>28 Ts</td>
<td>received 8 weeks of TET training, 2 1/2 hrs. per week. Teacher outcomes were the MTAI, Trait Anxiety (TAI), Concept of Education (C-E), and Attitude toward Children (ATE). Student outcome was their evaluation of their teachers: III:Toh. Eval. Quest. (ITEQ)</td>
<td>E: Pre- State Anxiety + M</td>
<td>C: Pre- MTAE + M</td>
<td>Gain on Student Attitudes: 4 of 5 subscales of the ITEQ</td>
<td>+ S</td>
<td>Ts in the E group had significantly higher means than the C Group and 4 of 5 subscales of the ITEQ.</td>
</tr>
<tr>
<td>McBee</td>
<td>198 T</td>
<td>received a 2-day workshop on TET, TET content and Pupil Control Ideology (PCI) were assessed before and after the workshop.</td>
<td>E: Pre- Affective knowledge + L</td>
<td>C: Pre- Post Pupil Control Ideology +/0</td>
<td>PCI scores became less custodial after some workshops; no change after others. No control group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blume</td>
<td>73 pre-service Ts</td>
<td>received 4 1 hour sessions on active listening skills. Tapes of the Ts conversations with children were scored for empathy</td>
<td>E, C: Rating of empathy + L</td>
<td>NONE</td>
<td>Effect size was moderate on the 6 week follow-up assessment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Both Ts were given 6 hours of training in the use of I-messages. Ts then attempted to reduce high rates of inappropriate behavior of target Ss.

All Ss participated in a 12 week TET course, 3 hrs./wk. Outcomes were assessed using the MTAI and by analyzing tape recordings of interviews.

Outcome: Failure to achieve control of disruptive rates during reversal indicates weak effect.

Interviews were conducted with individual pupils in non-classroom settings.

---

**Table 1 continued**

<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Strategy/Procedure</th>
<th>Observed behavior:</th>
<th>MTAI Analysis:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompson 2 T (1975) (elem) 6S</td>
<td>Both Ts were given 6 hours of training in the use of I-messages. Ts then attempted to reduce high rates of inappropriate behavior of target Ss.</td>
<td>Observed behavior: I-messages and reprimands</td>
<td>Facilitative responding (more)</td>
<td>None</td>
</tr>
<tr>
<td>Dillard 16 Graduate Students in Education (1974)</td>
<td>All Ss participated in a 12 week TET course, 3 hrs./wk. Outcomes were assessed using the MTAI and by analyzing tape recordings of interviews.</td>
<td>TAPE: Pre-Post MTAI 0</td>
<td>Non-facilitative responding (less)</td>
<td></td>
</tr>
</tbody>
</table>

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a Significance level. 0: Not significant; + : p < .05; +/- significant differences for only a subset of variables or groups; NEG: p < .05 but the effect favors the control group; NA: significance test not reported.

b Effect size symbols: L: large; M: Moderate; S: small (see text for explanation). Unless otherwise indicated, differences favor the E over the C group, or Post over Pre.

NOTE: The following abbreviations are used: Teacher (T), Student (S), Student teacher (ST), Trained group (E); Comparison group (C)
<table>
<thead>
<tr>
<th>Study</th>
<th>Subjects</th>
<th>Procedures</th>
<th>Design</th>
<th>Teacher measure</th>
<th>Sig. Eff.</th>
<th>Student measure</th>
<th>Sig. Eff.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moede &amp; Triscari (1985)</td>
<td>Ts and Ss at 4 schools began using ISS rooms with instructional monitors. Program effects were assessed through monitoring disciplinary actions over 3 years.</td>
<td>E: Pre-Post-Follow-up Teacher perceptions of effects on Ss</td>
<td>NA NA</td>
<td>Number of &quot;disciplinary actions&quot;</td>
<td>NA L</td>
<td>Discipline actions declined from 142 before the program began to 23 after 3 years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Houston 4 Ts, Slowik 74s (1982)</td>
<td>(Grades 7, 9) teachers used class meetings twice a week for 11 weeks. Effects were assessed on self concepts and locus of control of Mexican-American students.</td>
<td>E, C: NONE</td>
<td>Self-Concept</td>
<td>Aspiration</td>
<td>0 -</td>
<td>MANOVA indicated sig. post-test effects. E and C classes were in two different schools; groups were matched on &quot;pertinent socioeconomic, ethnic, and academic characteristics.&quot; (p. 52).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cady (1983)</td>
<td>142 T (K-12) Teachers in summer workshops received 8 one-half day training sessions on RT, Adlerian, or subject matter topics.</td>
<td>E1, E2, C: Pre, Post, &amp; 3 mo. Test of knowledge of RT, Adler concepts Follow-up (No randomization)</td>
<td>MTAI</td>
<td>+ L</td>
<td>NONE</td>
<td>After 3 months, effects were still significant. RT group had significantly higher means than the Adlerian groups, but the differences were generally small.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnson All Ss in City 2 Elem. Central and one School Middle District School</td>
<td>From 1972-1984 a multifaceted &quot;Outcomes-Driven Developmental Model&quot; was developed and implemented. Reality Therapy was a major part of the model.</td>
<td>Longitudinal NONE</td>
<td>Calif. Ach. Tests</td>
<td>Reading Math</td>
<td>+ N/A</td>
<td>A significant increase from 1976 to 1984 in the proportion of students 1/2 year above grade level was found in both reading and math at the end of grade 8. What portion, if any, can be attributed to Reality Therapy is not specified.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Brandon 14
(1981) Counselors were trained to use RT with chronically absent Ss, during 8 or more group sessions. Effects were assessed on absence rate and locus of control.

Welch 16 T
(1980) and
Dolly 10 S
(1979) and
Welch 1 T
(1978)

Marandola 1 T
and
Imber 10 S
(1979) (Elem)

Browning 28 T.
(1978) 668 S
(Grade 8)

Counselors trained to use RT with chronically absent Ss, during 8 or more group sessions. Effects were assessed on absence rate and locus of control.

8 T's received 24 hours of RT training and 8 matched comparison group T's did not. Classroom observations were made during 3 weeks pre-training and 3 weeks post-training.

Ten learning disabled boys participated in classroom meetings held on 8 consecutive days. Intervention focus was always related to argumentive behavior. Effect was assessed using observations of arguing behavior.

After receiving 20 hours for RT training, the E teachers used RT procedures for the last 6 weeks of school. Effects were assessed on teacher attitudes and on student attitudes, behavior, and grades.

Counselors welt trained to use RT with chronically absent Ss, during 8 or more group sessions. Effects were assessed on absence rate and locus of control.

E, C: Teacher attitude+ NA

Student attitudes + NA

Discipline referrals NEG NA

Grades + M

ANOVA used to equate groups on pre-test variables. E and C teachers were selected from different schools. Discipline referrals declined in C group, and showed little change for E group students.
<table>
<thead>
<tr>
<th>Program</th>
<th>Years</th>
<th>Teachers</th>
<th>Students</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
</table>
| Masters 150 T, and 3500 S | 1977 | Extensive training provided for Ts. | Effects were assessed by comparing E and C schools after 1 and 2 years of implementation, using a variety of teacher and student outcomes. | E: Pre, Classroom observation: +/O L 1 yr. (Modified Flanders, Post, Reciprocal Category 2 yr. Post System) C: Pre, Teacher attitudes 0 - Post, (Questionnaire) schools randomly assigned. | Disciplinary referrals + L  
Student attitudes 0/+  
Student achievement 0 - |
| Gang 2 T, 6S | 1974 | Concurrently enrolled in a seminar on RT, were given additional instruction. Ts also selected 3 Ss who were serious behavior problems. Effects of teacher application of RT were studied by observing the target students. | | E: Pre, NONE Post, Follow-up | Student behavior:  
Sustained schoolwork NA NA  
Oppositional NA NA |
| Matthews 8 Ts and 221 Ss (GR 4, 5) | 1972 | E group teachers received 5 1 1/2 hr. workshops. Class meetings were taped twice monthly. Treatment period: Jan.-May. | | E, C: NONE pre- post (no randomization) | Metropolitan Ach. 0 -  
Calif. Test of Personality 0 -  
Walker Problem Behavior Checklist + S |

Note: See Table 1 footnotes for abbreviations.
<table>
<thead>
<tr>
<th>Study</th>
<th>Subjects</th>
<th>Procedures</th>
<th>Design Teacher outcomes</th>
<th>Sig. off. Student outcomes</th>
<th>Sig. off. Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrett and Curtis (1986)</td>
<td>536 T (Student Teachers)</td>
<td>E teachers participated in a 6 hour AD workshop prior to student teaching. Program effects were assessed by comparing student teacher evaluations of training and supervisor's evaluations to the prior year's student teachers' assessments.</td>
<td>E, C ST rating of preparation post for discipline + S only Supervisor's rating of randomly assigned ST's discipline + S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McCormack (1985)</td>
<td>36 T (Elem, gr. 3)</td>
<td>Off-task rates in classes taught by 18 Ts using AD were compared to 18 Ts not using AD.</td>
<td>E, C, NONE multiple observations (not randomly assigned)</td>
<td>Off-task rate + L</td>
<td>Presence or absence of AD use was a stronger predictor of off-task rates than student ability level. Use of AD was verified via questioning of the T, students, and principals.</td>
</tr>
<tr>
<td>Barrett (1985)</td>
<td>102 T (Student Teachers)</td>
<td>E teachers received a 6 hour workshop on AD prior to student teaching. Effects were assessed on Pupil Control Ideology (PCI), Teacher Anxiety, and Teacher Concerns.</td>
<td>E, C: PCI Pre Anxiety Post Concerns 0 - NONE</td>
<td>Part of the E group received follow-up supervision and feedback based on AD concepts, but no effect of supervision on outcomes was detected.</td>
<td></td>
</tr>
<tr>
<td>Terrell (1984)</td>
<td>22 Schools (Sec.)</td>
<td>Eleven schools using AD were compared to 11 other schools, matched on SES enrollment, ethnic mix, and location. Outcome variables were assessed by administrator responses on questionnaires.</td>
<td>E, C: NONE Change from 82-83 to 83-84 Truancy rates 0 - Discipline referrals 0 - Dententions 0 - Suspensions from school 0 - In-school suspensions 0 - Post only - 83-84 Truancy rates 0 -</td>
<td>Matching process was carefully done. Most AD schools had used the procedures for 2 years. Moderately greater numbers of dententions and referrals occurred in AD schools, although in-school suspensions declined, compared to non-AD schools.</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>N</td>
<td>Grade Level</td>
<td>AD Training Details</td>
<td>Outcomes</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>-------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Ward (1983)</td>
<td>22 Ts</td>
<td>(Elem. &amp; Sec.)</td>
<td>After receiving AD training, teachers recorded the frequency of disruptive behaviors for one day. They then used AD for 4-6 weeks and recorded disruptive behaviors one more day.</td>
<td>E. pre- <strong>NONE</strong> post</td>
<td></td>
</tr>
<tr>
<td>Vendercook (1983)</td>
<td>25 T</td>
<td>(Elem)</td>
<td>All Ts received 15 hours of AD training. Effects were assessed by a questionnaire on attitudes toward discipline and by comparing referrals to previous year's.</td>
<td>E only: Attitude toward discipline Pre + L Post</td>
<td></td>
</tr>
<tr>
<td>Smith (1983)</td>
<td>98 T</td>
<td>(Student Teachers)</td>
<td>E group received a 6 hour AD workshop. Outcomes assessed using the Rathus Assertiveness Schedule (RAS) and supervisor ratings.</td>
<td>E, C: Attitude: RAS Pre + S Post</td>
<td></td>
</tr>
<tr>
<td>Henderson (1982)</td>
<td>75 T</td>
<td>(Elem)</td>
<td>E group received a 6 hour AD workshop. Effects assessed after 1 yr. of implementation using teacher questionnaires.</td>
<td>E, C: Teacher attitudes: Post only. (No random assignment) Teacher Control Ideology + NA</td>
<td></td>
</tr>
</tbody>
</table>

### Other Information
- **Referrals:**
  - Discipline referrals: 0 M(NEG)
  - Detentions: 0 M(NEG)
  - Suspensions from school: 0 -
  - In-school suspensions: 0 -
  - Student disruptions: + M

- **Limitations:**
  - Use of teacher reports of disruptions, without a validation check, is a limitation.
  - Referrals declined from Pre to Post but not below prior year's level.
  - Classroom management rating was taken from a subscale of a state-wide assessment form.
  - Assertiveness was assessed using subscales of Cattell's 16 PF Questionnaire. E and C groups were matched on teacher age, sex, grade taught and certification status.
<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Settings</th>
<th>Description</th>
<th>Teacher Perceptions</th>
<th>Student Performance</th>
<th>Student Behavior</th>
<th>Absences</th>
<th>Pre-Post Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bauer (1982)</td>
<td>68 T</td>
<td>Sec., gr. 9</td>
<td>Ts in a school using AD were compared to other Ts, in other schools over a 1 and 2 year period. Assessment based on referral rates, suspensions, teacher perceptions.</td>
<td>E, C: Teacher perceptions: +/-0 NA</td>
<td>Referrals +/- S</td>
<td>Suspensions 0 -</td>
<td>Student morale -</td>
<td>Absences 0 -</td>
</tr>
<tr>
<td>Kundtz (1981)</td>
<td>62 T</td>
<td>Elem.</td>
<td>Teachers in two school districts were compared. In one district all Ts had 1 or more years of experience using AD; In the second district, Ts had much less or no exposure to AD.</td>
<td>E, C: Self report of various management skills 0 -</td>
<td>Behavior problems 0 -</td>
<td>Student behavior problems were assessed by teacher reports. A majority of teachers in both groups reported that behavior problem frequencies had decreased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharpe (1980)</td>
<td>7 T, 83 S</td>
<td>Elem, Gr. 5, 6</td>
<td>Achievement scores of Ss whose Ts had received 6 hrs. of AD training were compared to scores of Ss of Ts who had not been trained.</td>
<td>E, C: NONE</td>
<td>Metropolitan Achievement Tests:</td>
<td>Reading 0 -</td>
<td>Mathematics 0 -</td>
<td>Pre-Post testing was one year apart. ANCOVA was used to control for pre-achievement.</td>
</tr>
<tr>
<td>Ersevas (1980)</td>
<td>57 T</td>
<td>Elem.</td>
<td>Ts at 4 schools received AD training. Pre and post survey questionnaires assessed teacher and student (5th grade only) perceptions.</td>
<td>E only: Assertive Discipline Survey:</td>
<td>Assertive Discipline Student Survey:</td>
<td>About your class: 0 -</td>
<td>About your class: 0 -</td>
<td>Survey of parents found no changes in their perceptions of discipline at the schools.</td>
</tr>
</tbody>
</table>

NOTE: See Table 1 footnotes for abbreviations.
Both authors report several case studies of schools using an Adlerian approach. Achievement and attitudinal results are compared to "traditional" schools or to expected status or gain.

Teachers in summer workshops received 8 one-half day training sessions on Adlerian, Reality Therapy, or subject matter topics. Adlerian groups had higher means than the comparison groups, but were significantly lower than the RT groups.

Krebs reports two studies evaluating a school using an Adlerian program. In one study the Barclay Classroom Climate Inventory (BCCI) was used to compare student perceptions to students in a matched control school. In the second study, students were compared one year after the E group returned to "traditional" schools.

On the Barclay instrument, 3 of 6 factors significantly favored the Adlerian school. On the ITBS, significant differences were found for all six subscales.

### Table 4. Summary of Adlerian Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Subjects</th>
<th>Methods</th>
<th>Design</th>
<th>Teacher Measures</th>
<th>Sig. Eff.</th>
<th>Student measures</th>
<th>Sig. Eff.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pratt (1985)</td>
<td>NA</td>
<td>Both authors report several case studies of schools using an Adlerian approach. Achievement and attitudinal results are compared to &quot;traditional&quot; schools or to expected status or gain.</td>
<td>Case</td>
<td>NONE</td>
<td></td>
<td>Achievement:</td>
<td></td>
<td>various measures NA S</td>
</tr>
<tr>
<td>and Kozuma (1977)</td>
<td></td>
<td></td>
<td>studies of individual schools</td>
<td></td>
<td></td>
<td>Attitudes:</td>
<td></td>
<td>various measures NA M/L</td>
</tr>
<tr>
<td>Cady (1983)</td>
<td>142 T</td>
<td>Teachers in summer workshops received 8 one-half day training sessions on Adlerian, Reality Therapy, or subject matter topics.</td>
<td>E₁, E₂, C:</td>
<td>MTAI</td>
<td>+ L</td>
<td>NONE</td>
<td></td>
<td>Adlerian groups had higher means than the comparison groups, but were significantly lower than the RT groups.</td>
</tr>
<tr>
<td>(K-12)</td>
<td></td>
<td></td>
<td>Pre, Adlerian, Reality</td>
<td></td>
<td></td>
<td>Post, Therapy concepts</td>
<td>+ L</td>
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<td>Post, and 3 Case study analysis</td>
<td></td>
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<td>mo. follow-up.</td>
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<td>Case study analysis</td>
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<td>continuity.</td>
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<tr>
<td>Krebs (1982)</td>
<td>NA (Elem)</td>
<td>Krebs reports two studies evaluating a school using an Adlerian program. In one study the Barclay Classroom Climate Inventory (BCCI) was used to compare student perceptions to students in a matched control school. In the second study, students were compared one year after the E group returned to &quot;traditional&quot; schools.</td>
<td>Study 1:</td>
<td>NONE</td>
<td></td>
<td>Attitudes, Perceptions:</td>
<td></td>
<td>On the Barclay instrument, 3 of 6 factors significantly favored the Adlerian school. On the ITBS, significant differences were found for all six subscales.</td>
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<td></td>
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<td></td>
<td>E,C</td>
<td>Post only</td>
<td></td>
<td>BCCI</td>
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<td>Study 2: Post only</td>
<td></td>
<td>Test of Basic Skills:</td>
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<td>Follow-up.</td>
<td></td>
<td>Six Subscales</td>
<td>+ M</td>
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</tbody>
</table>
Teachers and counselors who received graduate coursework in Adlerian techniques were surveyed 1 to 3 years after training to assess their use of the model.

Teacher perceptions:
All respondents reported successful use of the model.

NOTE: See Table 1 footnotes for abbreviations.