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An Alternative School: An Alternative Solution

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AN ALTERNATIVE SCHOOL: AN ALTERNATIVE SOLUTION

BY

ELAINE C. LEE

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

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Abstract

The increased incidence of violent behaviors by adolescents has had a significant impact on society. Because these behaviors are now being seen more frequently in school settings, the need for alternative forms of education has become apparent to administrators throughout the country.

The purpose of this study was to determine if an alternative high school program using Montessorian philosophy would enhance academic relevance, improve academic achievement, enhance social development, and improve the emotional well-being of the Socially and Emotionally Maladjusted adolescent.

The participants were 18 students diagnosed as Socially and Emotionally Maladjusted. The treatment group was comprised of 12 students placed in the alternative program, and the comparison group was comprised of six students who remained in the traditional self-contained classroom at the high school. Data were collected for the first half of the 1993/1994 school year and the first half of the 1994/1995 school year. Pre and post-test data were analyzed on both quantitative and qualitative measures.

Results indicated that adolescents' emotional well-being may be enhanced by the use of Montessorian philosophy. Within the five month period covered by the study, statistical significance was not established for academic relevance, academic achievement, nor social development. It is noteworthy, however, that the trend of the means on all measurements indicated positive changes for the treatment group. Conversely, means for the comparison group were either unchanged or indicated

negative trends. Qualitative results for the treatment group indicated that the students felt more comfortable with social interactions within the school and more positive about the likelihood of academic success.

These results justify further study to determine if the use of Montessorian philosophy is warranted as a basis for a viable alternative form of education for the Socially and Emotionally Maladjusted adolescent.

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AN ALTERNATIVE SCHOOL: AN ALTERNATIVE SOLUTION

Chapter I

Introduction

As adolescent crime becomes a major issue in this country not only are our communities and families affected, but our classrooms are affected as well. Increasingly, high schools across the country are faced with adolescents who are unconcerned with authority, heavily involved in drug use, and often in possession of weapons. In Connecticut, homicide is the second leading cause of death among 15 to 19 year olds (Connecticut Coalition for Children, 1994). Hull (1993) quotes 1990 data from the National Center for Health Statistics stating that "Gunshots now cause one of every four deaths among American teenagers." In the same article, citing from a Harris survey, it was reported that 59% of children polled said that they knew where to get a gun if they need one, 15% of the adolescents in the sixth through twelfth grades said they had carried a handgun in the past thirty days, and 11% reported having been shot at. The Centers for Disease control, in a 1993 summary, reported that among high school students, 8% had committed suicide, 27% had thoughts about suicide, and 25% had carried a weapon with them in the previous month. The report further stated that for students in grades 6-12, one-third felt unsafe at school, and one-half knew someone who carried a weapon to school. Furthermore, the Centers for Disease Control reported that in 1991, there were 4,000 motor vehicle deaths, 4,000 murders, and 4,000 suicides for children under the age of 19 (Poland, 1993).

Whereas the delinquency rate has not significantly changed in the past twenty years, the severity of crimes committed (i.e., violent deaths by weapons, drug-related deaths) has increased (Mayfield, 1986; Keen, 1989; Memmot & Stone, 1989), as have suicides by adolescents (Vidal, 1986; Leder, 1987; Harkavy-Friedman, Asnis, Boe, & DiFiore, 1987; Smith & Crawford, 1986; Ross, 1985; Gordon, 1985; Friend, 1988; Pfeffer, 1986). Today many school administrators are faced with the necessity of hiring armed guards to protect students and teachers from violent, acting-out adolescents.

The frustration of school administrators, psychologists, and teachers has an even stronger ring today than it did in the early seventies. In the seventies (Kennedy, Mitchell, Klerman, & Murray, 1976), a large increase in social service organizational work and major shifts in school programs were introduced in an effort to reduce delinquent behavior, which was becoming an increasingly difficult problem. Many of the children, identified as delinquent, are the same youth who are identified today as Socially and Emotionally Maladjusted by school systems and who create a unique problem for educators. According to Sarason (1983), "What happens in schools is fateful not only for pupils as individuals but also for society as a whole." Delinquents have placed an added economic burden on school systems as they require specially trained staff, smaller staff to pupil ratios, and out-of-district placement. Concern is not just for the particular system or population described in this study, but for the majority of public educational systems in this country.

Despite the influence of the Progressive Education movement, which stressed the importance of helping students to become actively engaged in learning, develop

initiative, originality, and social awareness (Dewey, 1916) and the reported changes in the past twenty years by the implementation of such programs as contract teaching; peer counseling; curricula for various skills such as sex education, career education, etc.; sensitivity training; and ungraded classrooms; essentially we are still following the Traditionalist approach to education, i.e., school-district-directed curriculum and teacher-directed learning. Traditionalist theory advocates that the students acquire the knowledge that is already incorporated in books and in the minds of the instructors, based on the assumption that society is static. "It imposes adult standards, subject-matter, and methods upon those who are only growing slowly toward maturity" (Cahn, 1970, p. 223). Research strongly suggests that the Traditionalist approach to education has not been successful with Socially and Emotionally Maladjusted high school aged youths because the emphasis is on academic learning alone. In reality, children are molded by family, church, community, and the state. These influences create continuous changes throughout the child's lifetime (Cremin, 1964). National achievement scores continue to remain weak among high school graduates, with many graduates unable to read beyond the fifth grade level. More tragic still is the reported fact that approximately one million students drop out of school each year: 85% of Native American Youth, 50% of Hispanic youth, and 44% of Black youth do not complete high school (Prause, 1991). One of the solutions frequently chosen by school administrators is to develop alternative programs which provide a less structured environment than the traditional high school.

This study evaluates an alternative program designed for Socially and Emotionally Maladjusted adolescents. The students are from a rural area in New

England, and the school district has opted for an alternative setting as well as an alternative program.

Chapter II

Background Theory and Research

This chapter examines background theory and research pertaining to the identification of Socially and Emotionally Maladjusted children and the subsequent need for an alternative form of education in this country. This chapter presents the criteria for diagnosis of the student identified as Socially and Emotionally Maladjusted, examines federal mandates connected with the education of these students, looks at relevant developmental theories, discusses three approaches to education, explores Montessorian philosophy as an approach to education, examines and evaluates the history of alternative schools, and finally, reviews the 1993/1994 program for Socially and Emotionally Maladjusted students in this study.

Diagnosis of Social and Emotional Disorders

The Education of the Handicapped Act, Public Law (P.L.) 94-142, was passed in Congress in 1975 and amended by P.L. 99-457 in 1986, to ensure that all children diagnosed as being handicapped are eligible for a free and appropriate education, which includes a "least restrictive environment" and the development of an Individual Education Plan (IEP) to meet the specific needs of the targeted child. The act was again amended in 1990 and the name was changed to the Individuals with Disabilities Act (IDEA) (NICHCY, 1991). This amendment defined the categories for determining eligibility due to a disability and specific guidelines for determining services and the implementation of such services. Under the regulations the IEP must include a medical,

psychological, and educational evaluation along with stated goals and a means of assessing those goals. The agreed upon program is evaluated yearly and formally evaluated every three years. Categories for qualifying children as handicapped are: autistic, deaf, deaf-blind, hard of hearing, mentally retarded, multihandicapped, orthopedically impaired, other health impaired, seriously emotionally disturbed, specific learning disability, speech impaired, traumatic brain injury, and visually handicapped. As the students in this study have been classified as Socially and Emotionally Maladjusted, we will examine the criteria necessary for this population to qualify for services under IDEA.

There are two components for identifying and qualifying a child for educational services in the school system. Social and emotional problems are identified using the following criteria: "(I.) A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance: (A) an inability to learn which cannot be explained by intellectual, sensory, or health factors; (B) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (C) inappropriate types of behavior or feelings under normal circumstances; (D) a general pervasive mood of unhappiness or depression; or (E) a tendency to develop physical symptoms or fears associated with personal or school problems and (II.) The term includes children who are schizophrenic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed (National Information Center for Children and Youth with Disabilities, 1991)."

The students in this study qualify for services under IDEA as seriously emotionally disturbed and are identified in this district as Socially and Emotionally Maladjusted. Many school systems are attempting to find the best solution to the problems of aggressive and disruptive children in their classrooms. In the school in this project, students labeled as Socially and Emotionally Maladjusted refuse to comply with clothing standards, use inappropriate language, disrupt classroom learning, have low school achievement, have juvenile delinquency records, have non-supportive families, defy school authorities, have excessive absences and tardies, have difficulty with interpersonal relationships, and have much higher suspension rates than students not so labeled. These children are unable to conform to established rules in a traditional high school setting.

The next section explores the difficulties encountered in meeting the requirements for providing an education to a child diagnosed as seriously emotionally disturbed.

Evaluation of Student IEP's

The federal mandate requiring the least restrictive environment for all children in the public school system has created many unique situations. In an attempt to meet the requirements mandated by the federal government, which requires a least restrictive environment for each child, Socially and Emotionally Maladjusted children have taxed the expertise of even the most progressive schools and enlightened administrators. In informal interviews with administrators and teachers in 15 surrounding towns, the author noted that various attempts to reach a satisfactory solution had been tried.

School administrators had experimented with many alternative programs to handle these difficult youth; however, there had been little success. One approach was to place disruptive children in special, isolated classrooms within the same building as the children comprising the rest of the school population. This practice led to severe problems of self-esteem for the separated students. Also, many teachers not directly involved with the students had difficulty dealing with the inappropriate behaviors of the students expressed. This often led to harsh criticism and severe punitive measures. In some school systems, alternative schools were set up within the school system and within the same facility, on a separate time schedule in order to make economic use of the facilities. However, often the students would not attend school during these hours since their peers were not in school. Other school systems had elected to hold such classes in other settings. One of the biggest difficulties with alternative sites has been the cost to establish and run a totally separate setting. Many extra curricular activities were sacrificed for economic reasons. Once a setting had been established the necessity existed to determine the most appropriate manner to teach academic requirements.

The next section explores the relevant developmental theories and how they may influence social and emotional adjustment of the adolescent.

Developmental Theories

Factors contributing to social and emotional development. Many educational theories have focused on the presentational styles of curriculum and have not been concerned with social and emotional development. In the planning stages of designing a program for the subjects in this study it was felt that developmental theories should be

examined as a means of exploring possible root problems connected with the emergence of poor social and emotional adjustment in the adolescent. Theories that look at developmental factors as possible sources for social and emotional problems in children will be examined.

One of the most striking behaviors in Socially and Emotionally Maladjusted children is their lack of empathy and their belief that no one is trustworthy. They have an extremely difficult time either giving or receiving caring gestures. Ainsworth (1979), Bowlby (1969), and Sroufe (1979) found that children who were avoidantly attached as infants developed aggressive and non-responsive behaviors, and were less competent in developmental tasks. The mothers of these non-responsive children showed a strong unwillingness to have physical contact with their children. Ainsworth pointed out the importance of good mothering to the development of caring and trusting behavior in children.

Another prevalent belief that the Socially and Emotionally Maladjusted child holds is that he or she is being singled out and unduly persecuted. If children develop an external view of the world, they believe that events happen as a consequence of those things going on in the world which are entirely out of their control. Rotter's Social Learning Theory offers the construct of Locus of Control, which, according to Rotter, states that a person is only strengthened by reinforcement when that person expects the response to lead to further rewards. People have individual differences in their response styles: the internal orientation is brought on by the person's own actions, while the external orientation is influenced by the person's belief that rewards are caused by outside influences (Rotter, 1954; 1966; 1975). Similar to this pattern of thinking is the

theory of “learned helplessness” (Maier & Seligman, 1976), which posits that repeated experiences of unpleasant outcomes result in expectations that all events are uncontrollable. The Socially and Emotionally Maladjusted child, due to repeated acts of unacceptable behavior, experiences constant negative feedback. These experiences may result in poor self-esteem, which further diminishes the child’s ability to control behaviors (Ross, 1979).

Another area of consideration might be factors affecting the child’s normal development, (i.e., neurological problems such as Attention Deficit Hyperactivity Disorder). Hyperactivity and Attention Deficit Disorders may contribute to delinquency when conduct disorders are also present (Loney, Kramer, & Milich, 1979). Henker and Whalen (1989) report that learning disabilities are commonly seen when Attention Deficit Hyperactivity Disorder is diagnosed. The authors also noted that internalizing disorders such as dysthymia, depression, and anxiety are occasionally seen in children diagnosed as having ADHD. Pelham and Bender (1982) describe hyperactive children as unable to sit still, unable to pay attention, frequently in trouble at school, rude, insistent on getting their own way, and aggressive. The overlap between ADHD and other externalizing disorders, such as Conduct Disorder and Oppositional Defiant Disorder, is over 50% (Henker & Whalen (1989). Additionally, it has been found that a high percentage of children who are hyperactive in childhood, particularly those who are also conduct disordered, evidence substance abuse problems in late adolescence (Gittelman, Mannuzza, & Bonagura, 1985). Many of the students in this study, diagnosed as Socially and Emotionally Maladjusted, have the additional diagnosis of ADHD. Rubin and Clark (1983) discuss the loss of self-esteem that ADHD children

develop as a consequence of their hyperactive behavior. In addition, children diagnosed as having ADHD are the most unpopular children at school.

Difficulties with an attachment figure in early childhood, problems with internal and external locus of control, learned helplessness, and an ADHD diagnosis are all possible contributing factors in the diagnosis of Socially and Emotionally Maladjusted students.

The next section examines three educational theories and the implications of such theories for educating the Socially and Emotionally Maladjusted adolescent.

Educational Theories

Three approaches to education will be discussed: the Intellectual Traditionalist, the Social Behaviorist, and the Experientialist (Schubert, 1986). Each approach has unique implications for Socially and Emotionally Maladjusted children. Each of these approaches to the education of the emotionally disturbed child can be evaluated using three criteria: program integrity (i.e., Does the program meet the educational goals as stated in the curriculum guide?); program acceptance (i.e., Is the curriculum as stated accepted and adhered to by staff and administrators?); and program effectiveness (i.e., Are the students achieving academic competence as set out by the curriculum guide?).

From the Intellectual Traditionalist point of view, the curriculum should be built around the classic literature, assuming that the child has had proper training in the techniques of reading, writing, and computing (Tyler, 1949). The basic purpose is to develop the mind, i.e., reason and logic. To accomplish this, the child must be competent to read comprehensively and to discuss such readings. This constant striving

for knowledge must be done by educators, as well as students. This knowledge should be acquired in a formal school setting. For this approach to education to be successful, the children would need to have been committed to learning from an early age.

Because children differ in their learning styles and may also have learning disabilities, the criterion of integrity is difficult to meet using this model. Children with learning disabilities and/or social and emotional problems often have difficulty in completing assignments in a traditional setting. Gold and Mann (1987) found that children are extremely affected by success or failure in school, and that early failure and subsequent loss of self-esteem is a large factor in children's behavior. Many children who have been unsuccessful in academics use disruption and delinquency to defend their failures in school.

As to program acceptance, from an Intellectual Traditionalist approach, students, teachers, parents, professional staff, and administrators all must express acceptance of the program by adhering to the guidelines as defined by the school curriculum format. The staff at the site under study had difficulty presenting the required curriculum to the socially and emotionally maladjusted students due to difficulties in maintaining order in the classrooms; students expressed unhappiness with the curriculum offered and the isolation from their peers; parents often refused to allow their children to be placed in the classrooms for behaviorally disordered students due to the lack of curriculum offered; and the administrators did not believe that children diagnosed as Socially and Emotionally Maladjusted should be provided with academic challenges.

Program effectiveness can be measured by the academic achievement, number of suspensions, number of drop-outs, re-enrollment into mainstream, and number of

placements to out of school sites by students enrolled in the program. In the past year students in the program under study had an absentee rate of over 50%; an attrition or failure rate of 78%; and no student was successfully mainstreamed.

The Social Behaviorist model calls for a strict adherence to scientifically-developed programs of study (Schubert, 1986). The model calls for more research on the study of the learning process and how to best facilitate learning in those students who do not thrive under traditional learning methods. Like the Intellectual Traditionalist, the Social Behaviorists believe that education should be delivered in the schools.

Despite the extensive calls for reform and development of curricula that encouraged “back to basics” format in the sixties and seventies, little change has come about (Sarason, 1983). Because attempts are made to adhere to rigid methods of teaching along with the continued use of traditional classroom settings, with token modifications for the delinquent child, the Socially and Emotionally Maladjusted student is not able to achieve success (Sarason, 1983). Integrity is not met because the students identified as Socially and Emotionally Maladjusted are not offered the academic and social opportunities that are clearly stated in the district curriculum guideline. The criterion of program effectiveness cannot be met with students who are already several grade levels behind in academic achievement and unable to concentrate and stay attentive in restrictive environments. These same students are not advancing academically at an expected pace. Additionally, the isolation of these students and the difficulty in maintaining discipline violates the criterion of program acceptance because the curriculum as stated is not adhered to by staff and administrators. Neither the

Intellectual Traditionalist nor the Social Behaviorist model meets the needs of the Socially and Emotionally Maladjusted student.

On the other hand, the Experientialist model holds some promise for developing a curriculum program that could meet all three of the criteria of evaluation, i.e., program integrity, program acceptance, and program effectiveness. The basic premise of the Experientialist is that experiences and ideas should be shared among educators, scientists, all those engaged in the educational process, and, most importantly, with the students. In determining what is to be learned or what is important to know, all involved persons should be concerned with the consequences of such knowledge to oneself and to society as a whole (Schubert, 1986).

The concern for the development of curriculum using the Experientialist model for this population is related to the children's early experiences. Opportunities for the exchange of ideas and experiences in the early pre-school years may be beneficial in developing a quest for knowledge. However, many of the children in this study lack strong foundations, both in terms of family environment and early schooling. A large percentage have been in programs for behaviorally disordered children as early as first or second grade. File records show instances of drug use, alcoholism, and abuse by parents or guardians. Additionally, many of the parents are unwilling or unable to cooperate with the schools in implementing supplemental programs for their children. Because of these negative underlying factors, these children are often several grade levels below the norm for their age groups, as measured by achievement scores, and a non-traditionalist approach to education must be taken in order to expedite learning. The Experientialist philosophy appears to offer a reasonable chance for success because

it allows children to interact with their teachers and with their communities at large in a non-traditional setting.

Given these theories of development and education, there seems to be some evidence that points to a need to consider developmental facts and childrens' learning styles in the design of an educational program. Maria Montessori, a pioneer in the design of educational systems, proposed a developmental theory as the foundation of her educational theory and it is this theory that will be explored as an alternative means of educating the Socially and Emotionally Maladjusted.

Montessori as an Alternative

One form of alternative education which has met with success on an international level was designed by Dr. Maria Montessori (Standing, 1959, 1966). Her method of education incorporates an Experientialist philosophy and has been used successfully with children challenged economically, socially, and mentally, as well as with normal student populations ages 2.5 years through 18 (Montessori, 1964; Lillard, 1972).

Since 1907, everywhere in the world children have been building pink towers, using cylinder blocks, working with number rods, tracing sandpaper letters, counting with beads, doing an infinite variety of exercises of practical life; in humble classrooms, in palaces, schools, convents, homes, outdoors, indoors, in private and in public (Gang, 1982, p 15).

The basic concept of the Montessorian approach is its attention to the development of the whole child. Montessori devised a program of individualized instruction which encourages children to make discoveries and learn at their own pace within a prepared environment. The use of manipulative and autodidactic materials

allows children to progress from the concrete to the abstract in language, math, science, and practical living (Kahn, 1980).

Maria Montessori proposed four stages of development based on the following age groups: 1) birth to six, which centers around two environments, the home and school, and is identified as the period of “construction” in which the child absorbs his/her environment indiscriminately; 2) six to twelve, which is known as the period of “consolidation” in which the child wants to explore society’s morals and values; 3) twelve to eighteen which is referred to as a time of “rebirth”; and 4) eighteen to twenty-four in which the youth takes his/her place in society (Gang, 1982). Montessori’s developmental stages were based on her observational studies of children and the work of Itard and Sequin (Bentley, 1965).

Montessori-based education for the 2.5 to 12 year old has been well defined and documented in training centers throughout the world. Her program for adolescent education (i.e., Erdkinder) was not fully implemented before her death and remains at the experimental stage today. However, Montessori clearly outlined the needs of the adolescent and stated that the child is “...constructing his social self...the chief symptom of adolescence is a state of expectation, a tendency toward creative work, and a need for the strengthening of self-confidence” (Gang, 1982, p. 9).

This researcher proposes a Montessorian approach to education to deal with the problems inherent in adolescents identified as Socially and Emotionally Maladjusted. Montessori’s concept of Erdkinder (children of the land) is a vehicle for the development of the practical, social, academic, and spiritual needs of the adolescent using three basic theories: academic relevance, opportunities for real experiences in

society, and advancement toward economic independence (Thrush, 1978). Four curricular foci are 1) practical life skills which include personal grooming, work, arts and crafts, drama and sports, 2) advanced sensorial discovery of the world and nature, 3) language and culture throughout the history of civilization, and 4) mathematical and scientific development from the ancient civilizations to the modern civilizations (Wikramaratne, 1980).

According to Montessori, adolescents should not be confined to schedules. Intellectual, formal learning is at a low ebb during this stage of development. Learning should occur through successful task completion such as raising animals, farming, operating a business, and financial management (Barker, 1986). The children would not only operate machinery, but learn how to repair the machinery; they would not only repair the buildings, but learn how to build them; they would assist in the birth and illnesses of the animals and learn about procreation, death, and caring. They would learn a respect for nature. They could learn commerce through the selling of their farm products; and they would also understand cooperation in the community, i.e., supply and demand. Children do not feel successful simply by completing a task, but because that task is important to the community (Barker 1986). To further quote Maria Montessori: "But he who accomplishes a truly human work, he who does something really great and victorious, is never spurred to his task by those trifling attractions called by the name of 'prizes,' nor by the fear of those petty ills which we call 'punishments'" (Bentley, 1965, p. 23).

Montessori further stated that during adolescence youth should develop a sense of personal dignity. Failure to develop this sense at this point can result in anxiety,

depression, and feelings of inferiority for the adolescent and can also be a loss to the community in the sense that the adolescent develops into an unmotivated and unproductive adult (Montessori, 1973). Incorporating the Montessori method allows the adolescent to develop his/her individual talent while in contact with his/her peers.

Although Montessori advocated having adolescents take full responsibility for all aspects of their daily lives, she believed that all farm schools should have house parents because family life is very important to the adolescent. The sense of family was accomplished through the division of students into small groups with house parents living with each group. Adolescence is a time for the individual to reflect on his family experience and to prepare attitudes for raising his own family (Thrush, 1978).

Montessori believed that the school environment provides a greater outlet for freedom of expression since it is not restricted to the needs of one family. While it was not possible to provide a residential setting for this study, the concept of a family environment was attempted through the use of shared meals and responsibilities and the school building was a residential house.

Montessori placed great emphasis on the spiritual development of the human. She called adolescence a “sensitive period” and stated: “But it is necessary to consider not only the active occupations but the need for solitude and quiet, which are essential for the development of the hidden treasures of the soul” (Thrush, 1978).

Maria Montessori’s words, spoken half a century ago, are still pertinent today, especially regarding the education of the Socially and Emotionally Maladjusted students:

...the need that is so keenly felt for a reform of secondary schools concerns not only an educational, but also a human and social problem. This can be

summed up in one sentence: Schools as they are today are adapted neither to the needs of the adolescent nor to the times in which we live...The reform of the secondary school may not solve all the problems of our times, but it is certainly a necessary step (Montessori, 1973, p. 97).

History and Evaluation of Alternative Schools

Various programs have been established within school settings in an attempt to accommodate such students. Some administrators have integrated these students into traditional classrooms. Other administrators have placed these children in restricted settings within the same school setting. Alternative school administrators are experimenting with programs that involve parental and community involvement, while other alternative school administrators are providing strong social skills and/or self-esteem programs. Additionally, administrators at some alternative schools are providing a strong support system for staff and personnel working in these programs.

The decision to develop alternative forms of education has been brought about by the realization that the “general use of preventive and corrective discipline techniques is insufficient for dealing with students who exhibit a consistent and marked pattern of antisocial behavior, or those ‘at-risk’ for developing such a pattern” (Thomas & Grimes, 1990, p. 657). Indicators of “at-risk” behaviors are (a) poor parental management; (b) early onset of antisocial behavior; (c) reports of lying, stealing, or truancy; (d) antisocial behavior within the family; (e) poor educational achievement; (f) rejection by peers; and (g) alcohol and drug abuse (Hawkins, Catalano, & Miller, 1992, Loeber & Dishion, 1983, Parker & Asher, 1987, Roosa, Beals, Sandler, & Pillow, 1990). These “at-risk” behaviors are prevalent in children labeled Socially and Emotionally Maladjusted.

Some of these approaches have had marginal success because these students are unmanageable in the traditional classroom and it is difficult to present a standardized curriculum to students who have many educational deficiencies. Research has shown that these students require more flexibility and a more individualized, non-competitive, supportive, and structured setting (Banks, 1987, Coopmans, 1984, Fine, 1990, Gittman, 1991, Johnson, 1982, Kennedy, 1976, Shaw, 1975, Silvestri, 1986, Smith-Davis, 1985).

Mesinger (1982, 1986) contends that over a third of incarcerated delinquents are disabled and need special education treatment. He further states that the trend to de-institutionalize delinquents and to develop alternatives to public school for behaviorally disordered youth are placing some of these individuals from each category in the same alternative setting. Mesinger also discusses the trend toward the definition and assertion of civil rights for behaviorally disturbed youth and their right to a free and appropriate education in the least restrictive environment.

Although many “at-risk” students have families who place little emphasis on education and are non-supportive of school or societal rules and regulations, those programs that are providing strong parental support and interaction with the community are proving to be the most successful (Borduin & Mann, 1987; Bucci, & Reitzammer, 1992; Buroker, 1993; Glaser, 1992, Maine State Department of Education, 1992).

Programs that are providing strong social skills and/or self-esteem curriculum are also meeting with success, although students placed in alternative settings have lower self-esteem scores at the onset of the program than students placed in a traditional setting. It was also found that social skills training needs to be linked with day-to-day

interactions (Gillespie & Hillman, 1993; Jackard, 1988; Lee, 1990; & Mosher, 1978). Additionally, the social environment, caring adults, counselor interest, and trust all play a major role in developing social skills in potentially “at-risk” students (Arthur, 1989; Europa, 1982; Gerics & Westheimer, 1988).

Finally, a major factor in an alternative program’s success is a high level of administrative support. One of the most prevalent problems encountered by staff at alternative schools is “burn-out.” The behavior and lack of academic skills makes teaching very challenging. Additionally, many staff personnel not working with these children are reluctant to assist and the teachers in the alternative programs often find themselves isolated from the traditional support systems (Winborne, 1991; Eichinger, 1984).

The following is an example of an alternative program that was unsuccessful but was the basis for the development of the alternative program under study. During the 1993/1994 school year, a program for students labeled Socially and Emotionally Maladjusted was operated within the school during traditional school hours. Since the adolescents were classified as Socially and Emotionally Maladjusted, they were placed within the jurisdiction of the Special Education program. Justification for enrollment in this special program was based upon the child’s inability to function in a normal classroom setting. A child was considered to be unable to function based upon frequent disruptive behavior, inability to accept adult authority, inappropriate language, inability to complete homework assignments, inability to stay focused during classroom periods, and truancy or habitual absences.

The process for placement in the alternative program was extensive. The first step was the identification by a teacher or other staff member of a student experiencing difficulties within the mainstream setting. The staff member then referred the student to the Student Intervention Team (SIT). Members of the Student Intervention Team gather information, identify problems, and propose interventions. If interventions provide no improvement in the student's behavior or academic success, a Pupil Placement Team (PPT) meeting is called and through a PPT contract, the child is placed in a special program for the Socially and Emotionally Maladjusted student. A re-evaluation of the child's program is conducted in thirty days.

The 1993/1994 program used three classrooms, and staff consisted of three teachers, and two aides. The students were placed according to grade level, i.e., 9th graders in one class, 10th graders in another class, and 11th and 12th graders in the third class.

A behavior management program based on the level system was used to modify behavior. This level system, controlled by points earned or lost in a given time period, granted progressively more privileges as the level increased. The lowest level allowed no privileges; the student was escorted everywhere in the building and the student could not leave the classroom during period breaks. The highest level permitted a student to re-enter the mainstream setting, which was the ultimate goal of the program. If the student was unable to maintain proper and acceptable self-control with these restrictions, the next placement was generally to an environment outside of the school, either in a night school program or a special program in a separate setting that was

designed specifically to deal with unruly adolescents. If these drastic measures were unsuccessful, referral was made to Juvenile Court.

The academic requirements of the program were intended to follow the academic requirements of the high school program for traditional students, with modifications made for each individual student. These requirements called for twenty credits to graduate, which included US History, Basic Math, Occupational Math, Civics, Biology, General Science, Health, Keyboarding, Computer, English, and Physical Education. Because students in this program were under the direction of the Special Education Department, courses could be altered to compensate or substitute for certain requirements. The curriculum program for the high school, last evaluated in 1989, stressed reading and arithmetic as being the main focus for children diagnosed as Socially and Emotionally Maladjusted. In addition, this population was offered such programs as technological education, food services, physical education, and career development. The curriculum was written for all students following the traditionalist approach using teacher-directed content of subject matter.

In actuality, little academic progress, social skills improvement, or career development was accomplished under the program. Students spent 15 to 20 minutes for two periods a day doing actual educational projects; one class period was held in Language Arts, and one class period was held in Mathematics. Classrooms were located in an isolated wing of the building and/or in the basement area of the building which houses the trades programs. Physical education was conducted by the student's primary teacher, and no formal gym program was available. Lunch period was held separately from the rest of the school population, although meals were eaten in main

cafeteria. The students were excluded from general assembly meetings except under very special circumstances. A small minority of these students were mainstreamed for one or two classes per day, but none were successful in remaining in a mainstream classroom.

The lack of discipline in the classrooms made learning difficult. On a national level, it is estimated that time lost in classrooms by disruptive behavior is as high as 55% (Gottfredson, 1987) so it is not surprising that the majority of the teachers' class time was spent attempting to maintain discipline. Administrators and teachers not directly involved with the program were often harsh and punitive with these students in an effort to maintain discipline in the school building.

The role of the School Psychologists in this setting was to mediate discipline problems, to provide methods for calming students, to provide therapeutic interventions, and to provide relief to the teachers at various periods of the day. Additionally, school psychologists provided psychoeducational evaluations.

All of these students had tested cognitive abilities within the low to high average range. Most, however, were below expected grade levels in reading, written language, mathematics, science, social studies, the humanities and basic skills. In addition, the majority of the students were identified as Socially and Emotionally Maladjusted before reaching junior high school.

Conclusion

This review has examined the criteria for identifying children diagnosed as Socially and Emotionally Maladjusted, followed by the evaluation of some specific

developmental factors that appear to be relevant in the emergence of disruptive and aggressive behaviors in adolescents.

Three educational theories; the Intellectual Traditionalist, the Social Behaviorist, and the Experientialist were also examined. These three theories were examined in terms of program integrity, program acceptance, and program effectiveness. Montessorian theory was explored in depth as an example of an Experientialist approach to education. It was concluded that a Montessorian philosophy might best meet the needs of the Socially and Emotionally Maladjusted adolescent because it combines both educational and developmental theory.

Finally, a review of the history of Alternative schools was presented, as well as a description of the previous years' program for the subjects in this study. In an effort to improve the program an alternative site with an alternative program was established for these students for the 1994/1995 school year. This study evaluates the new alternative program and addresses four hypotheses: An alternative high school program based on Montessori philosophy 1) enhances academic relevance; 2) improves academic achievement; 3) enhances social development; and 4) improves the emotional well-being of the Socially and Emotionally Maladjusted adolescent. It was expected that the Montessori concept of educating the whole child would be beneficial to this Socially and Emotionally Maladjusted population because it integrates the social, emotional, physical, and intellectual needs of the student.

Chapter III

Method

Source of Data

The Board of Education in a rural New England district, after an evaluation in the spring of 1993, determined that the self-contained program for the Socially and Emotionally Maladjusted students within the high school setting was not meeting the needs of its students, faculty, or administration. Problems with discipline, disruptive behavior, absenteeism, student drop-out rates, tardiness, and academic failure continued despite extensive program changes. A review of alternative school programs in one New England state was conducted, and it was concluded that a day program at an alternative site would best meet the needs of the district. The 1993/1994 academic year was spent developing a program, training staff, and finding a site. In addition, parents of the targeted students were informed of the proposal, and pupil placement team (PPT) meetings were held for each student targeted for the new program. Because this program was experimental, the Board of Education requested that an evaluation be done of the program and the researcher was assigned to do the evaluation.

Subjects

At the end of the 1993/1994 school year there were a total of 24 students in the self-contained Socially and Emotionally Maladjusted program in the traditional high school. A decision was made to continue with the present program in the traditional high school for the Socially and Emotionally Maladjusted students deemed competent to attend some mainstream classes and to place the students with more severe emotional

difficulties in the Alternative Program. Students were then categorized on the basis of severity of behavior problems in the traditional setting. A total of fifteen students were selected for the initial program to commence in August, 1994. In addition, four students who had been placed in out-of-district settings due to behavioral disorders, were returned to the district and placed in the Alternative Program. The original sample consisted of five females and fourteen males, all of Caucasian background with the exception of one Native American male. Although there were two African American students in the 1993/1994 program at the high school, both of these students dropped out of school in the spring of 1994. Minorities comprise less than one percent of the total population in the school system. All of the students under study in the Alternative Program were between the ages of thirteen and eighteen; one was an eighth grader, three were ninth graders, eleven were tenth graders, and four were eleventh graders. All subjects have IQ's within the low average to high average range. Of the nineteen students originally placed in the alternative program, 12 remained in the program at the completion of the study. One student left after the first day; one student was hospitalized for psychotic behavior within the first week; four students left in October as a result of severe discipline problems, i.e., alcoholism, fire setting, and drug use; and one student left in January, 1995, due to pregnancy and a lack of interest in continuing her education.

A comparison group was comprised of the eight students assigned to the Socially and Emotionally Maladjusted class in the traditional high school. These were the students who were capable of handling some mainstream classes and who were considered less severely emotionally disturbed. The original sample for the comparison

group consisted of two males and six females, all of Caucasian background. The students ranged in age from fourteen to eighteen; four were ninth graders, three were tenth graders, and one was an eleventh grader. All of the subjects have IQ's within the low average to high average range. Of the eight subjects in the original comparison group, six were still attending the traditional program at the completion of this study. One subject transferred to another school in November, 1994, and the other student was transferred to the alternative program in December, 1994 as a result of behaviors not tolerated at the traditional high school. See Table 1 for the breakdown by gender, age, grade, and Full Scale IQ for the treatment group and the comparison group.

The staff consisted of one school psychologist/director, two special education teachers, one technological education teacher, two instructional assistants, and one part-time social worker. All members of the staff were drawn from the staff serving the Socially and Emotionally Maladjusted students in the traditional high school, with the exception of the social worker, who was newly hired by the district. The three teachers and the social worker were involved in the evaluation of the subjects.

Instruments

Instruments were used in the study to measure 1) cognitive functioning, 2) academic achievement, 3) self-esteem, 4) behavior, and 5) emotionality, as well as demographics, school attendance records, number of suspensions, and educational measures. In addition, students completed daily behavior evaluation forms and questionnaires regarding program evaluation. Self-report instruments filled out by the staff focused on knowledge of Montessori, behavior evaluation, and satisfaction with the program.

Table 1

Breakdown of Treatment Group and Comparison Group Subjects by Sex, DOB, Age, Grade, and IQ

Treatment Group

<u>Subject Number</u>	<u>Sex</u>	<u>DOB</u>	<u>Age</u>	<u>Grade</u>	<u>FSIQ</u>
1	M	05/01/78	16.3	11	81*
2	F	02/28/77	17.7	10	
3	M	05/27/78	16.3	9	89*
4	F	04/21/77	17.4	11	95*
5	M	09/20/78	15.11	10	86*
6	M	05/21/77	17.3	11	89*
7	M	03/10/77	17.5	10	
8	F	01/05/79	15.7	10	93*
9	M	04/18/79	15.4	9	86*
10	M	05/12/78	16.3	10	N/A*
11	M	02/04/80	14.7	9	
12	M	09/30/79	14.11	10	113*
13	F	04/20/78	16.4	10	79*
14	M	04/27/77	17.4	10	
15	M	08/31/78	16	10	
16	M	02/02/78	16.7	10	
17	M	09/02/77	16.11	9	
18	M	07/16/81	13.1	8	116*
19	F	12/11/79	14.7	9	81*

Mean Age=16.01

Comparison Group

<u>Subject Number</u>	<u>Sex</u>	<u>DOB</u>	<u>Age</u>	<u>Grade</u>	<u>FSIQ</u>
40	M	01/17/78	16.7	10	105*
41	F	06/22/79	15.2	10	105*
42	F	02/21/79	15.7	9	
43	F	07/16/76	18.1	11	91*
44	M	10/23/79	14.10	9	116*
45	F	07/06/79	15.1	9	91*
46	F	01/18/79	15.8	10	101*
47	F	06/16/80	14.2	9	

Mean Age =15.61

*=Subjects in the final study

Wechsler Intelligence Scale for Children, Third Edition, (WISC-III) (Wechsler, 1991). This instrument, administered on an individual basis, is used to assess the intellectual functioning of children between the ages of six years and sixteen years, eleven months. Results provide a verbal, performance, and full scale IQ ($M=100$, $SD=15$). The instrument is considered to have strong reliability and validity. Internal consistency reliability estimates for the three scales are .89 and above, while subtest reliabilities range from .69 to .87. Test-retest reliabilities range from .86 to .95, and .57 to .89 for the subscales (Wechsler, 1991).

The Woodcock Johnson Test of Achievement, (WJ-R) (Woodcock & Johnson, 1989). The Woodcock Johnson psychoeducational battery is used to measure a subject's level of cognitive functioning and academic achievement. This instrument assesses three areas of functioning: cognitive ability, achievement, and interest. For the purposes of this study, the achievement portion of the battery was used. The five achievement clusters included in this battery are: Broad Reading, Broad Written Language, Broad Mathematics, Broad Knowledge, and Skills. These cluster scores can be converted standard scores having a mean of 100 and a standard deviation of 15 and percentile ranks. The various clusters have split-half or test-retest reliability scores in the .80's and .90's. Sattler (1988) notes that the cluster scores are more reliable than the subtest scores.

Piers-Harris Self-Concept Scale (Piers, 1984). This scale is an eighty-item self-report measure for children between the ages of eight and eighteen and assesses how the respondent feels about himself or herself. There are six cluster scales: I. Behavior; II.

Intellectual and School Status; III. Physical Appearance and Attributes; IV. Anxiety; V. Popularity; and VI. Happiness and Satisfaction. A total score may be obtained as well as scores for each cluster. The total raw score and cluster scores may be converted to percentiles, stanines, and/or T-scores. A score of less than 30 is considered very much below average and a score above 70 is considered very much above average. The average range falls between 45 and 55. Normative data were derived from a sample of 1,183 children in a small town. While later studies using larger samples were also completed, the norms for the total scores are from the original sample. Total score reliabilities range from .88 to .93, and subscale reliability scores range from .73 to .81. Test-retest reliability estimates range from .69 to .96 in intervals of less than five months, and test-retest reliability for intervals of eight months to one year average .50. Correlations between teachers' rating of self-esteem and self-report esteem rating tend to be in the .30 to .50 range and even lower when compared to peer ratings (Martin, 1988). Investigations of the Piers-Harris Children's Self-concept scale support the use of this measure for research purposes due to the strong reliability and validity of the scale (Witt, Heffer & Pfeiffer, 1990).

Youth Self-report (YSR) (Achenbach & Edelbrock, 1981) and Teacher's Report Form (TRF) (Achenbach, 1991). These measures are parallel forms for assessing behavior developed from Achenbach's Child Behavior Checklist. Sattler (1988) reports that the Child Behavior Checklist is well standardized and has adequate reliability and validity. Achenbach and Edelbrock (1981), in follow-up adolescent sampling, found a correlation of .69 between the factors on The Child Behavior Checklist (Achenbach, 1991) and The Youth Self-report. The scales on these

instruments are divided into two major sections: Competent Scales and Problem Scales. The Competent Scales measure social involvement and activities, while the Problem Scales are used for diagnostic purposes. Raw scores are converted to T-scores with scores below 67 considered in the normal range; scores between 67 and 70 considered to be in the borderline range and scores 70 and above considered to be clinically significant. For the purposes of this study, the Problem Scales have been used. These Problem Scales are divided into internalizing and externalizing groupings. Although the two groupings represent different types of problems they are not mutually exclusive. Average correlations on the YSR between Total Internalizing and Total Externalizing scores resulted in a r of .52. Achenbach reports a positive association between problems that may be considered opposites but attributes this to the fact that individuals who score high in one area tend to score high in other areas, with the reverse being true as well. Achenbach cautions that a child should not be labeled as either internalizing or externalizing unless there is a discrepancy of at least ten points on their T-scores, and his/her Total Problem Score exceeds the 89th percentile for his/her sex. Test-retest reliability estimates are adequate for self-report (.82 for Problem Scales). Correlations between the Teacher's Report Form, and the Conners Conduct Problems Scale and inattention passivity range from .80 to .83. Closest to the Connors Hyperactivity Scale were the TRF Aggressive Behavior ($R=.67$) and Externalizing ($R=.63$).

Structured Pediatric Psychosocial Interview (SPPI) (Webb & Van Devere, 1991). This instrument is used to assess expression of life concerns and affective distress. This is a standardized, norm-referenced, structured interview which takes approximately 20 to 30 minutes to administer. Developed for those from the ages of

five through nineteen, it yields measures of interpersonal sensitivity, relating style, perceptions of causality, and state of arousal. The major scales of Feeling, Thinking, Relating, and Impetuosity were developed using structural modeling and factor analytic procedures. There is high inter-rater agreement ($r=.90$), moderate levels of long-term stability ($r=.37$ to $.40$), and moderate to high internal consistency indices for three of the major scales ($.70$ to $.93$ for the Thinking and Feeling scales and $.43$ to $.48$ for the Impetuosity scale). The fourth scale, Relating, is more likely to reflect responses to transient stress. C-Scale equivalents have a mean of 5 and a standard deviation of 3.

Reynolds Adolescent Depression Scale (RADS) (Reynolds, 1987). This instrument is a self-report measure designed to assess symptomatology associated with depression for adolescents from the ages of thirteen through eighteen, but not to provide a diagnosis of a specific or definitive depressive disorder. The RADS has thirty items and uses a 4-point Likert-type response scale. Raw scores are converted to percentile ranks. This instrument was standardized on a sample consisting of 2,460 adolescents in grades seven through twelve. Although the principal sample was taken from one geographic area, concurrent samples from other areas of the country showed similarities of means and standard deviations. Internal consistency reliability estimates by grade range from $.91$ to $.92$. Internal reliability coefficients for grade by sex range from $.90$ to $.92$ for males and from $.92$ to $.94$ for females. Test-retest reliability scores for the principal sample were $.80$ over a six-week period and $.79$ over a three-month period. One year test-retest studies resulted in a coefficient of $.63$. Nineteen of the 30 items show reliability coefficients above $.50$, while four items have coefficients below $.30$ (Reynolds, 1987).

Pre-test and Post-test Questionnaires. Pre-test and Post-test Questionnaires for students were developed to evaluate their self-perception of teaching and learning styles, methods of discipline, interpersonal relationships, and social experiences (Appendices A & B). The Pre-test Questionnaire evaluated the 1993/1994 academic program, and the Post-test Questionnaire evaluated the 1994/1995 academic program. Pre-test and Post-test Questionnaires were developed for staff to evaluate academic programs, discipline methods, and staff and administrative support (Appendices C & D). Similarly, the staff Pre-test and Post-test Questionnaires evaluate the 1993/1994 and 1994/1995 academic programs, respectively. In addition, Pre-test and Post-test Questionnaires were developed to assess the staff's knowledge of Montessorian philosophy and techniques of teaching (Appendices E & F).

Behavior Data Sheets. A Behavior Data Sheet (Appendix G), using a five point Likert scale (i.e., 1=never; 2=rarely; 3=some of the time; 4=most of the time; 5=all of the time), was developed to record daily behaviors of each student. This instrument contained four subscales; A) Academic Behavior, which evaluated lesson participation, on task behaviors, and rule following; B) Community/Social Behavior, which evaluated respect for authority, social interaction within the school community, social interaction outside of the school community, and care of the environment; C) Emotional Behavior, which evaluated verbal and non-verbal communication, problem recovery, care and safety of ones-self, sexual issues and sexuality, aggression, and participation in counseling; and D) Physical Behavior, which evaluated grooming, diet, and physical activity.

Treatment

The subjects attended an alternative school which was housed at a separate location several miles from the traditional high school. In accordance with Montessorian educational philosophy, the developmental needs of the whole child were taken into consideration in the design of the program (Appendix H). Thus, the goal of the program was to provide an environment that would foster individual growth through the use of an integrated program focused on the social, emotional, physical, and cognitive development of the adolescent. An ecological model was utilized incorporating educational, family, community, clinical, and medical resources. The operational foundation of this program was adherence by staff and students to three basic concepts: respect, responsibility, and resolution. The Mission Statement is presented in Appendix I.

Upon arrival, students were provided with breakfast, which they prepared themselves. This was followed by a group meeting, lasting 15 to 30 minutes, in which students and staff had an opportunity to discuss relevant issues. There were 5 to 6 students in each of the six daily classes, which were held for a period of forty-two minutes each. Language Arts, Transitional Math, Algebra, Social Studies, US History, Biology, Science, Physical Education, Woodworking, Drafting, Electrical Wiring, Foods, Nutrition, Health, and Art were offered. Each classroom had a special education teacher and an instructional assistant. Students were taken to the local YMCA for physical education, and also had a basketball net and an ample lawn for physical activities at the site. The students had a 15 minute morning break and a half hour lunch period. All food was cooked and prepared on the premises and students

participated in its purchase, preparation, and clean up. Staff and students took breaks and meals together. At the end of the day a meeting was again held, with staff and students in attendance, to discuss relevant issues. Several students worked in community jobs two days a week and this work was integrated with their academic requirements. Additionally, several students participated in a science class held by a local science center off-grounds, and this program was integrated into the science program at the school. All of the students participated in an eight-week drug and alcohol class and an eight-week parenting class. All students received group and individual therapy weekly. The school psychiatrist was available at all times to handle emergency situations. Staff met twice daily to review curriculum or behavioral concerns.

The Behavior Management Policy, similar to Glasser's Ten-step approach in Reality Therapy (Thomas & Grimes, 1990), deviates from the behavior modification plan used in the traditional high school. When necessary, this program was further modified to meet the needs of a particular student by focusing on a specific behavior. Out-of-school suspensions were used only for severe discipline situations, such as substance abuse on the premises or fire setting. All other discipline problems were handled within the facility, but no restraints were used. Students were encouraged to take responsibility for their behavior and were asked to resolve any conflicts before being returned to class or a group activity. Students were also encouraged to ask for time-out if they felt that they were unable to control their behavior. See Appendix J for the details of the Behavior Management Policy. The comparison group continued to

use the behavior modification program which had been used the previous year at the traditional high school.

Procedure

At the beginning of the 1994/1995 school year, a questionnaire was given to each of the staff members to determine their understanding and knowledge of Montessorian philosophy. A follow-up educational training session was held to familiarize staff with the Montessorian philosophy of education. Pre-test data were collected on all student during the second half of the 1993/1994 school year. These data included IQ scores, achievement scores, self-esteem measures, a depression measure, behavior measures, suspension records, attendance records, and grades from the first half of the previous academic year (August, 1993 to January, 1994). At the beginning of the 1994/1995 school year, a questionnaire was completed by each student and each staff member to evaluate satisfaction with last year's program.

Formative data were collected on a daily basis by each staff member and each student through the use of the Behavior Data Sheets. During morning and afternoon staff meetings, results of the Behavior Data Sheets were discussed in developing interventions for correcting unacceptable behavior. At the beginning and the end of each day staff and students met to review students' progress and to allow students to voice their concern.

Behavior Data Sheets were collected for 86 days over a twenty week period. This time period was equivalent to a half year of school. Students were asked to rate themselves daily; however, the ratings were not suitable for analyses in this study

because the students consistently rated themselves as behaving perfectly for each of the 86 days in the study. Inter-rater reliability coefficients between staff ratings and the social worker ratings were .76 during the first ten weeks on subscale A; and .91 during the second ten weeks on subscale A. On subscale B, the same inter-rater reliability was .96 during the first ten weeks and .97 during the second ten weeks. Subscale C yielded inter-rater reliability correlations of .83 during the first ten weeks and .87 during the second ten weeks, The final section, D, showed correlations of .45 during the first ten weeks and .71 during the second ten weeks between staff and the social worker (see Table 2).

Table 2
Interrater Correlations Between Staff and Social Worker on the Four Behavior Data Sheet Subscales

	Subscales	r	p-Value
SxSW@ 1st 10 wk period	A	.76	<.001
	B	.96	<.001
	C	.83	<.001
	D	.45	.170
SxSW@ 2nd 10 wk period	A	.91	<.001
	B	.97	<.001
	C	.87	.001
	D	.71	<.05

Weekly curriculum evaluations were completed by each staff member about each student to assess academic progress. These results were discussed and, if necessary, appropriate curriculum changes were made.

The clinical component of the program consisted of weekly group and individual sessions for each student. In addition, the social worker and school

psychologist were available on an as- needed basis for crisis intervention and supplementary support and counseling.

Chapter IV

Results

This study was designed to evaluate a new alternative high school which focused on a Montessorian philosophy in the implementation of its program. Four hypotheses were investigated: An alternative high school program based on a Montessorian philosophy 1) enhances academic relevance; 2) improves academic achievement; 3) enhances social development; and 4) improves the emotional well-being of the Socially and Emotionally Maladjusted adolescent.

Data Collection

During the last five months of the 1993/1994 school year each of the adolescents in the alternative school and a comparison group was administered a battery of tests, which included the Wechsler Intelligence Scale for Children, Third Edition; the Woodcock Johnson Test of Achievement, Revised; the Structured Pediatric Psychosocial Interview; the Piers-Harris Children's Self Concept Scale; the Reynolds Adolescent Depression Scale; the Youth Self-report; and the Teacher's Report Form. At the end of the first five months of the 1994/1995 school year the students were again administered the same battery of tests, with the exclusion of the Wechsler Intelligence Scale for Children. In addition, data were gathered on the number of absences, the number of in-school suspensions, the number of out-of-school suspensions, and grades for Language Arts and Mathematics for the first five months of the 1993/1994 school year and the first five months of the 1994/1995 school year. At the beginning of the

1994/1995 school year, students completed a questionnaire evaluating the previous years' program and their expectations of the new program for the 1994/1995 school year. At the end of the first five months of the new program, all students, with the exception of one, completed the questionnaire a second time, evaluating the new program.

Staff completed two questionnaires at the beginning of the 1994/1995 school year; a questionnaire evaluating the 1993/1994 program at the traditional high school, and a questionnaire assessing their knowledge of Montessorian philosophy. At the midpoint of the 1994/1995 school year, staff completed questionnaires evaluating the 1994/1995 program and assessing their knowledge of Montessorian philosophy.

A Behavior Data Sheet was completed daily by the three special education teachers and the social worker on each student in attendance for the first twenty weeks of the 1994/1995 school year.

Academic Relevance

Both quantitative and qualitative data were examined to address the first hypothesis: An alternative high school based on Montessorian philosophy enhances academic relevance. Quantitative data examined was 1) number of absences, 2) number of in-school suspensions, and 3) number of out-of-school suspensions. Qualitative data examined were pre-test and post-test responses by students on questions numbered 1 (How would you describe your school experience last year?), 12 (How do you feel about being involved in this new off campus alternative program?), and 13 (What do you expect to get out of this program?) on the program evaluation questionnaire

(Appendices F & G), as well as pre-test and post-test responses by staff on questions numbered 1.A.(How would you rate the self-contained SEM program at the traditional high school for the school year 1993/1994; Did the program achieve its stated goals; If yes, what contributed to its success; If no, what contributed to its failure?) and 1C (Were the curriculum goals adhered to in the implementation of the program; If yes, how was this accomplished; If no, what contributed to its failure?) on the program evaluation questionnaire (Appendices H & I).

Quantitative analyses. Due to the small number of subjects, unequal n's, and the violation of the assumption of homogeneity (McCall, 1986), nonparametric Mann-Whitney U tests were performed comparing the treatment group and the comparison group on each of the dependent variables (number of absences, number of in-school suspensions, and number of out-of-school suspensions) at pre-test and post-test to examine the impact of the alternative program on these variables.

Table 3
Means and Standard Deviations of Absences for Treatment and Comparison Group at Pre-test and Post-test

		Pre-test	Post-test
Treatment Group	M	14.17	6.92
	SD	15.49	11.74
Comparison Group	M	21.00	9.17
	SD	36.45	9.37

Table 3 reports the means and standard deviations of number of absences for the treatment group and the comparison group at pre-test and post-test. Pre-test results

showed that there were no significant differences between the treatment group (Mean Rank = 10.125) and the comparison group (Mean Rank = 8.250) on the number of absences; $U=28.50$, $Z= -.702$, $p<.05$. Post-test results also showed no significant differences between the treatment group (Mean Rank = 8.708) and the comparison group (Mean Rank = 11.083) on the number of absences; $U=26.50$, $Z= -.890$, $p<.05$.

Means and Standard Deviations of in-school suspensions for treatment and control groups at pre-test and post-test are shown in Table 4. Pre-test results showed that there were no significant differences between the treatment group (Mean Rank = 9.333) and the comparison group (Mean Rank = 9.833) on the number of in-school suspensions; $U=34.00$, $Z=-.187$, $p<.05$. Post-test results show no significant differences between the treatment group (Mean Rank = 9.292) and the comparison group (Mean Rank = 9.917) on the number of in-school suspensions; $U=33.50$, $Z= -.234$, $p<.05$.

Table 4
Means and Standard Deviations of In-School Suspensions for Treatment and Comparison Group at Pre-Test and Post Test

		Pre	Post
Treatment Group	M	1.33	1.50
	SD	3.42	1.73
Comparison Group	M	1.33	1.67
	SD	2.07	1.86

Means and standard deviations of out-of-school suspensions for treatment and control group at pre-test and post-test are shown in Table 5. Pre-test results showed that there were no significant differences between the treatment group (Mean Rank = 10.625) and the comparison group (Mean Rank = 7.250) on the number of out-of-school suspensions; $U=22.50$, $Z= -1.264$, $p< .05$. Post-test results showed a significant difference between the treatment group (Mean Rank = 7.583) and the comparison group (Mean Rank = 13.333) on the number of out-of-school suspensions; Mann Whitney $U=13.00$, $Z= - 2.154$, $p=.03$.

Table 5

Means and Standard Deviations of Out-of-School Suspensions for Treatment and Comparison Group at Pre-Test and Post-Test

		Pre	Post
Treatment Group	M	8.75	.08
	SD	10.03	.29
Comparison Group	M	2.50	4.33
	SD	1.52	4.63

To compare the pre and post-test means for absences, in-school suspensions, and out-of-school suspensions for the treatment group and the pre and post-test means for the comparison group, Wilcoxon Signed Rank Tests were performed (Gagnon, 1989). For the treatment group there was a significant difference from pre-test to post-test on absences ($p=.04$) and out-of-school suspensions ($p=.005$). There were no significant differences across time for the treatment group on in-school suspensions.

There were no significant differences across time for the comparison group for the three measurements of absences, in-school suspensions, and out-of-school suspensions.

Qualitative analyses. Questions 1, 12, and 13 pertained to academic relevance and thus were included in the analysis of the first hypothesis. In the first question, subjects were asked to describe their school experience last year in the traditional program. One subject responded positively about the program. For the eleven subjects who responded negatively about last year's program, the main areas of dissatisfaction related to the level system and the rigid rules. Post-test responses about this year's alternative program for this question were generally positive, although some of the students indicated that larger classes and/or more students would improve the program. The opportunity to have weekly physical education classes at the YMCA and the less rigid Behavior Management Plan were the most often cited as reasons for satisfaction with the program. The second question asked the subjects how they felt about being involved in the new off-campus alternative program. In the pre-test questionnaire two subjects were unhappy about participation in the new program; two were non-committal; and eight subjects listed responses ranging from "fair" to "great." Post-test results for this question included one negative response, four "fair" responses, and seven "good" responses. The "fair" rating was associated with the limited number of students and the off-site location of the school. The off-site location made it more difficult for them to connect with their friends who were not in the program at the alternative site. The third question asked subjects what they expected to get out of this program. Pre-test responses indicated that four of the subjects hoped to graduate successfully. Eight subjects had no comments or had negative expectations. Post-test

responses showed that eight students expected to successfully complete high school, six students expected to improve coping skills, and two students expected to gain nothing from the program.

In addition to the subjects in the study, three teachers and the social worker were given pre-test and post-test questionnaires to evaluate the 1993/1994 program and the 1994/1995 program. Questions that were relevant to the first hypothesis were listed in section I.A. and section I.C. of the Staff Evaluation of the SEM Program and focused on program efficacy, and program acceptance, respectively. The social worker, being new to the system, did not answer any questions in this section on the pre-test questionnaire.

Program efficacy was addressed in section I.A., and asked staff to rate the self-contained SEM program at the traditional high school for the school year 1993/1994 and if the program achieved its stated goals. The results showed that one respondent thought that the program met its stated goals, one thought it did not, and one thought that the program was partially successful. When staff completed the post-test questionnaire, which evaluated the 1994/1995 alternative program, all four respondents indicated that the alternative program had achieved its stated goals. The second part of that question asked the staff to indicate what contributed to its success. In the pre-test results, positive responses were attributed to the five-level behavior modification program and to administrative support, faculty cohesiveness, and creative planning. Post-test results indicated that the respondents thought that the sense of community, the program design, and the philosophy of accountability by students for meeting their academic and behavioral goals, had contributed to the success of the alternative

program. For those respondents who stated the program was not successful, the third section of Question I.A. asked what they felt contributed to its failure. In the pre-test results, respondents cited absence of structure, degree of social and emotional dysfunction in the students, and the use of a self-contained classroom within the traditional high school as negative factors which contributed to the program's failure. There were no negative post-test responses.

Program integrity was addressed in section I.C. The three parts of the question asked if curriculum goals were adhered to in the implementation of this program; if yes, how was this accomplished; and if no, what contributed to its failure. In the pre-test responses referring to the traditional school program, one respondent thought that the curriculum goals were adhered to and the success was due to the use of a small structured classroom. One respondent thought that attempts were made to adhere to curriculum goals; however, the severe emotional and behavioral difficulties of the population interfered with the attainment of these goals. One respondent stated that the use of team teaching methods helped to achieve goals; however, the severity of the students' problems made these attempts only partially successful. Post-test evaluation of the alternative program indicated that two respondents believed that the program was successful due to focused attention to curriculum goals and the use of weekly lesson plans. The two negative responses were associated with the failure to use an integrated curriculum. Although an integrated curriculum was included in the stated goals, the staff was not trained nor experienced in integrating subject matter.

Academic Achievement

Both quantitative and qualitative data were examined to address the second hypothesis: An alternative school based on Montessorian philosophy improves academic achievement. Quantitative data examined were the five cluster scores of the Woodcock Johnson Test of Achievement (WJR) and the students' grades for the first half of the 1993/1994 school year, as well as section A (Academic Behavior) of the Behavior Data Sheet. Qualitative data examined were pre-test and post-test responses by students on questions 2 (What new academic information did you learn last year?), 3 (What new skills did you acquire last year?), 4 (How was the academic information taught to you?), and 5 (What do you consider the best way for you to learn?) of the program evaluation questionnaire, as well as pre-test and post-test responses by staff on question 2 ((In your opinion, what do you see as the greatest difficulty in dealing with SEM adolescents in a public school setting?) of the program evaluation questionnaire.

Quantitative analyses. Seven 2x2 ANOVAs, with one within subjects and one between subjects dimension (Edwards, 1985) on pre-test and post-test scores for treatment and control group, were performed on five dimensions of the Woodcock Johnson Test of Achievement (WJR) and two dimensions of students' grades.

Means and standard deviations of the five dimensions of the Woodcock Johnson Test of Achievement for treatment and control group at pre-test and post-test are shown in Table 6. There were no significant main effects nor interaction effects for the five cluster scores Broad Reading, Broad Mathematics, Broad Written Language, Broad Knowledge, and Skills of the Woodcock Johnson Test of Achievement. Trends indicated that means for the clusters of Broad Mathematics, Broad Written Language,

Table 6

Means and Standard Deviations for Woodcock Johnson on Standard Scores of Broad Reading, Broad Mathematics, Broad Written Language, Broad Knowledge, and Skills for Treatment and Comparison Group at Pre-Test and Post-Test.

		<u>Treatment</u>		<u>Comparison</u>	
		Pre	Post	Pre	Post
BR	M	97.67	96.83	98.00	95.00
	SD	14.45	13.18	17.44	11.78
BM	M	90.25	92.00	89.67	90.17
	SD	7.70	9.95	8.52	9.09
BW	M	86.50	91.00	91.00	92.33
	SD	11.35	14.49	14.81	13.32
BK	M	91.17	91.08	88.17	88.00
	SD	12.87	13.73	5.31	4.56
S	M	88.17	89.08	90.17	91.17
	SD	10.57	10.56	13.60	9.73

T=Treatment Group; C=Comparison Group; BR=Broad Reading; BM=Broad Mathematics; BW=Broad Written Language; BK=Broad Knowledge; S=Skills

and Skills were higher on the post-test scores for both the treatment group and the comparison group, while the means for the clusters of Broad Reading and Broad Knowledge decreased slightly for both the treatment group and the comparison group.

Means and standard deviations of the two grade dimensions of Language Arts and Mathematics for treatment and control group at pre-test and post-test are shown in Table 7. There were no significant main effects nor interaction effects for Language Arts or Mathematics. Trends of the means for the treatment group were higher on the

Table 7

Means and Standard Deviations for Grades on Language Arts and Mathematics for Treatment and Comparison Group at Pre-Test and Post-Test.

		<u>Language Arts</u>		<u>Mathematics</u>	
		Pre	Post	Pre	Post
<hr/>					
Treatment Group	M	73.00	74.75	69.17	77.58
	SD	11.92	8.59	15.53	9.63
Comparison Group	M	81.50	75.83	78.67	71.00
	SD	10.71	9.83	10.44	9.80

post-test score for Language Arts and Mathematics, while the means for comparison group were lower on the post-test scores for both Language Arts and Mathematics.

For results of the Behavior Data Sheets, the social worker was grouped as one unit of measurement and the three teachers were grouped as another unit of measurement. This separation was done to allow for the differences in number of days reported by the teachers as compared to the social worker, who was only in attendance for two days each week.

Data were grouped over four 5 week periods. The means and standard deviations of the four 5 week periods of Academic Behavior for treatment group are shown in Table 8. Results of the one factor repeated measures ANOVA (Edwards, 1985) for the four 5 week periods ($M=4.33$, $M=4.23$, $M=4.09$, $M=4.04$) were not significant for the social worker, but the means showed a downward trend over the twenty week period. Nor were the results rated by the social worker significant comparing the first 10 weeks ($M=4.28$) to the last 10 weeks ($M=4.06$). Teachers'

Table 8

Means and Standard Deviations of Section A) Academic Behavior on the Behavior Data Sheet for Treatment Group by Teacher and Social Worker at 1st 5 weeks; 2nd 5 weeks; 3rd 5 weeks; 4th 5 weeks and 1st 10 weeks versus 2nd 10 weeks.

	Teachers		Social Worker	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
1st 5 wks	4.22	.62	4.33	.45
2nd 5 wks	4.38	.37	4.23	.57
3rd 5 wks	4.23	.46	4.09	.53
4th 5 wks	4.20	.56	4.04	.54
1st 10 wks	4.30	.47	4.28	.48
2nd 10 wks	4.21	.51	4.06	.53

Likert Rating Scale: 1=never, 2=rarely, 3=some of the time, 4=most of the time, 5=all of the time.

results on the repeated measures ANOVA for the four 5 week periods were not significant ($M=4.22$, $M=4.38$, $M=4.23$, $M=4.20$). Nor were the results significantly different for the first 10 weeks ($M=4.30$) as compared to the last 10 weeks ($M=4.21$). There was a variation in the means, showing an increase in the means over the first ten weeks, and a downward trend over the last ten weeks.

Qualitative Analyses. Self-report measures related to academic achievement were addressed in questions 2,3,4, and 5 on the pre-test and post-test questionnaires for students. Responses to Question 2 (i.e., What new academic information did you learn this year?) referred to the 1993/1994 school year at the traditional site for the pre-test and to the 1994/1995 school year at the alternative site for the post-test. On the pre-test

questionnaire, seven students responded that they had learned nothing; three students mentioned improved knowledge in specific academic areas; one student did not respond at all; one student indicated ambivalence. Post-test replies indicated that nine students improved in specific academic areas; one student indicated nothing had been learned; one student was noncommittal about new academic information learned.

When asked what new skills had been acquired, pre-test data indicated that one student improved in math skills, two improved in coping skills and three gained in vocational skills. Four students indicated that they had acquired no new skills, and two did not know whether they had acquired any new skills. On the post-test results, one student indicated improvement in math and writing skills, one learned coping skills, and three learned various vocational skills. As in the pre-test, four students indicated that they had acquired no new skills, and two did not know whether they had acquired any new skills.

When asked how academic information was presented, on the pre-test three students reported that the teaching methods were poor, four students reported teacher directed learning, two did not know; and three had no response. On the post-test responses two students reported that the teaching methods were poor; one student reported that the teaching method was fair; five reported teachers used textbook oriented learning; two described teachers as using individualized teaching methods; one described being taught as part of a large group of students. It is believed that this question was not understood by the students since most responses, both pre-test and post-test, were given in the form of concrete answers or were not responded to at all.

Question 5. which asked, “ What do you consider the best way for you to learn?”, seemed to be more clearly understood by the students, especially at the end of the post-test period. Pre-test responses indicated that three students preferred small groups, one student preferred brief lesson periods, one student preferred curriculum modifications, four students were unresponsive and three felt that no method was successful. Post-test responses indicated that five students preferred small groups, two students preferred a hands-on approach, two students preferred a one-on-one learning style, one preferred observational style learning, and one preferred independent reading. Post-test results seem to indicate that the students had a clearer understanding of their learning styles after spending five months in the alternative program.

Self-report measures related to academic achievement were addressed in question 2 on pre-test and post-test questionnaires for staff. This question asked staff what they saw as the greatest difficulty in dealing with SEM adolescents in a public school setting. Respondents cited isolation, the rigid structure of the program, the lack of understanding of the needs of socially and emotionally maladjusted adolescents on the part of uninvolved staff and administrative personnel, and the inability of these adolescents to abide by traditional rules. Post-test responses, which asked staff to identify problems in dealing with socially and emotionally maladjusted adolescents in an alternative setting, indicated that providing the wide range of services needed by these students and dealing with the students’ low self-esteem issues were the most frequently identified problems.

Social Development

Both quantitative and qualitative data were examined to address the third hypothesis: An alternative high school program based on Montessorian philosophy enhances social development. Quantitative data included the Youth Self-report, the Teacher's Report Form (TRF) and sections B(Community/Social Behavior) and D (Physical Development) on the Behavior Data Sheet. Qualitative data were pre-test and post-test responses by students on questions 7 (Did your program allow you enough opportunities to socialize with your friends; If yes, give examples; If no, why not?), 8 (What type of relationships did you have with your teachers?) and 9 (What type of relationships did you have with other staff?) on the program questionnaire, as well as pre-test and post-test responses by staff on questions in section 1.B.(Was the program able to meet the students' needs; If satisfied, what contributed to its success; If dissatisfied, what contributed to its failure; Was there adequate support for you in the implementation of the program?) of the program questionnaire.

Quantitative Analyses. Six 2x2 ANOVAs, with one within subjects and one between subjects dimension, were performed on the three subscales of the Youth Self-report (YSR) and the three subscales of the Teacher's Report Form (TRF).

Means and standard deviations of the three subscales of the Youth Self-Report for treatment and control group at pre-test and post-test are shown in Table 9. There were no significant main effects nor interaction effects on the three scales of Total Score, Internalizing Score, and Externalizing Score on the Youth Self-report. Internalizing Score post-test means showed a slight downward trend for the treatment group, while the comparison group showed an increase in means on the post-test scores.

Table 9

Means and Standard Deviations for Treatment and Comparison Group at Pre-Test and Post-Test on the Three Scales of the Youth Self-Report on Total Score, Internalizing Score and Externalizing Scores.

		Treatment		Comparison	
		<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
TS	M	57.08	56.75	68.33	68.33
	SD	11.12	12.13	9.03	8.71
IS	M	52.83	52.58	64.50	65.33
	SD	9.88	10.98	8.74	7.42
ES	M	60.58	60.08	69.83	67.67
	SD	12.65	13.30	8.64	8.48

TS=Total Score; IS=Internalizing Score; ES=Externalizing Score.

Both the treatment group and the comparison group showed a downward trend in the means on the post-test scores of the Externalizing Score.

Means and standard deviations of the three subscales of the Teacher's Report Form for treatment and comparison group at pre-test and post-test are shown in Table 10. There were no significant main effects nor interaction effects on the three scales of Total Score, Internalizing Score, and Externalizing Score for the Teacher's Report Form. Both the treatment group and the comparison group showed downward trends of the means on post-test scores of all three scales of Total Score, Internalizing Score, and Externalizing Score for the Teacher's Report Form.

To examine results of the Behavior Data Sheets on Section B and D, data were grouped over four 5 week periods. The means and standard deviations of the four 5 week periods for treatment group are shown in Table 11. Results of the one way

Table 10

Means and Standard Deviations for Treatment and Comparison Group at Pre-Test and Post-Test on the Three Scales of the Teacher's Report Form on Total Score, Internalizing Score and Externalizing Scores.

		Treatment		Comparison	
		<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
TS	M	64.75	61.67	68.33	62.17
	SD	8.15	3.28	8.87	10.53
IS	M	56.42	54.67	60.33	51.17
	SD	9.52	6.79	14.40	19.44
ES	M	69.08	64.42	66.33	65.67
	SD	8.22	4.76	5.85	6.19

TS=Total Score; IS=Internalizing Score; ES=Externalizing Score.

repeated measures ANOVA for the four 5 week periods for Community/ Social behavior (M=4.23, M=4.01, M=3.87, M=4.08) were not significant for the social worker. Nor were the results significant comparing the first 10 weeks (M=4.12) to the last ten weeks (M=4.05). Teachers' results on the repeated measures ANOVA for the four 5 week periods were not significant (M=4.08, M=4.26, M=4.19, M=4.06). Nor were the results significantly different for the first 10 weeks (M=4.22) as compared to the last 10 weeks (M=4.17). Results of the repeated measures ANOVA for the four 5 week periods for Physical Development (M=4.35, M=4.56, M=4.61, M=4.64) were

Table 11

Means and Standard Deviations of Section B) Community/Social Behavior and Section D) Physical Development on the Behavior Data Sheet for Treatment Group by Teacher and Social Worker at 1st 5 weeks; 2nd 5 weeks; 3rd 5 weeks; 4th 5 weeks and 1st 10 weeks versus 2nd 10 weeks.

	Teachers		Social Worker	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Section B				
1st 5 wks	4.08	.66	4.23	.47
2nd 5 wks	4.26	.41	4.01	.59
3rd 5 wks	4.19	.40	3.87	.51
4th 5 wks	4.06	.54	4.08	.62
1st 10 wks	4.22	.50	4.12	.45
2nd 10 wks	4.17	.47	4.05	.53
Section D				
1st 5 wks	4.21	.50	4.35	.47
2nd 5 wks	4.43	.40	4.56	.39
3rd 5 wks	4.19	.44	4.61	.25
4th 5 wks	4.08	.40	4.64	.39
1st 10 wks	4.30	.42	4.51	.40
2nd 10 wks	3.98	.73	4.65	.30

Likert Scale Ratings: 1=never, 2=rarely, 3=some of the time, 4=most of the time, 5= all of the time.

not significant for the social worker. Nor were the results significant comparing the first 10 week period (M=4.51) to the last 10 week period (M=4.65). Teachers' results on the repeated measures ANOVA for the four 5 week periods were not significant

($M=4.21$, $M=4.43$, $M=4.19$, $M=4.08$), nor were the results comparing the first 10 week period ($M=4.30$) to the last 10 week period ($M=3.98$) significant.

Qualitative analyses. Three questions on the pre-test and post-test self-report questionnaires given to the students at the alternative site also addressed the third hypothesis: questions 7, 8, and 9. The first question asked students if the program allowed them enough opportunities to socialize with their friends, and to give examples for their positive or negative answers. Based on the 1993/1994 school year's traditional program, two students were satisfied, eight students were dissatisfied with the social opportunities, and two students did not respond to the question. Post-test responses showed that eight students reported satisfaction with the social opportunities afforded them at the alternative site. Six of the positive responses were attributed to the opportunity to socialize during breaks. Three students were dissatisfied with socialization opportunities. Dissatisfaction was associated with constant surveillance, lack of friends in the program, and limited social time during class time. The next question asked students to describe the type of relationships they had with their teachers. In the pre-test results, one student reported "good" relationships with teachers, nine students reported "fair" to "poor" relationships, one student reported a "very poor" relationship, and one student did not comment. Post-test results indicated that eight students had "good" relationships with their teachers, while three students reported a mix of "good" and "poor" relationships with teachers. The last question asked students to describe the type of relationships they had with other staff. On the pre-test questionnaire, two students reported "good" relationships with other staff members, one student reported "fair" relationships, two reported "poor" relationships, and three

reported “very poor” relationships. Two students reported a mix of “good” and “bad” relationships with other staff members whereas one student reported no relationships with other staff and one student did not answer the question. Post-test questionnaires showed that ten of the students reported good relationships with the other staff at the alternative site, while one student reported dissatisfaction with relationships with other staff.

Program acceptance was addressed on the staff questionnaire in section I.B, and asked teachers if the program was able to meet the students’ needs, and to identify factors contributing to its success or failure. Responses were mixed. One of the teachers thought that the program did meet the needs of the students and attributed this success to the use of team teaching in the classroom. One thought the program met the needs moderately well; one thought the program did not meet the needs of the students. The latter two respondents cited lack of administrative support as contributing factors. Post-test responses, in evaluating the alternative program, were also mixed. Two of the staff members felt that the program was successful in meeting the students’ needs because of the small student/teacher ratio, the flexibility of the program structure, staff commitment, and the intimate home-like environment. Those who felt it did not meet the needs of the students cited the lack of sufficient curriculum materials and the limited space as problematic. The next question asked if there was adequate support in the implementation of the program. Mixed responses were received on the pre-test questionnaire; one response was positive and two were negative. The negative responses were associated with isolation of the program, the lack of administrative support, and the behavior modification program. In contrast, on the post-test

questionnaire, the staff stated unanimously that they had adequate support in the implementation of the alternative program.

Emotional Well-Being

Both quantitative and qualitative data were used to address the fourth hypothesis: An alternative high school program based on Montessorian philosophy improves the emotional well-being of the Socially and Emotionally Maladjusted adolescent. Quantitative data examined the four clusters of Thinking, Feeling, Relating, and Impetuosity on the Structured Pediatric Psychosocial Interview, the Piers-Harris Children's Self-Concept Scale, the Reynolds Adolescent Depression Scale, and section C (Emotional Behavior) of the Behavior Data Sheet. Qualitative data were pre-test and post-test responses by students on questions 6 (What did you think of the methods of discipline used last year?), 10 (What personal methods did you use to deal with emotionally difficult situations?), 11 (How would you describe your support system at the school?), and 14 (What are your expectations about yourself in this program?) on the program evaluation questionnaire for students, as well as pre-test and post-test responses by staff on question 3 (What type of program or philosophy do you advocate for these students, and why?) on the program evaluation questionnaire for staff.

Quantitative Analyses. Six 2x2 ANOVAs, with one within subjects and one between subjects dimension, were performed, one on each of the four clusters of the Structured Pediatric Psychosocial Interview, the total score on the Piers-Harris Children's Self-Concept Scale, and the total score on the Reynolds Adolescent Depression Scale to examine the impact of the alternative program on these variables.

Table 12

Means and Standard Deviations of Cluster Scores of Thinking, Feeling, Relating, and Impetuosity on the Structured Pediatric Psychosocial Interview for Treatment and Comparison Groups at Pre-Test and Post-Test.

		Treatment		Comparison	
		<u>Pre</u>	<u>Post</u>	<u>Pre</u>	<u>Post</u>
T	M	6.09	7.00	7.50	8.33
	SD	2.91	2.37	2.26	1.86
F	M	6.54	7.73	8.83	8.67
	SD	2.30	2.57	1.17	.82
R	M	7.27	6.18	7.67	7.33
	SD	2.01	1.83	2.73	2.25
I	M	7.73	7.63	8.33	7.17
	SD	2.53	2.38	1.86	2.32

T=Thinking; F=Feeling; R=Relating; I=Impetuosity

Means and standard deviations of the four clusters of the Structured Pediatric Psychosocial Interview for treatment and comparison group at pre-test and post-test are shown in Table 12. There were no significant main effects nor interaction effects for the four clusters of Thinking, Feeling, Relating, and Impetuosity on the Structured Pediatric Psychosocial Interview. Post-test mean scores for the cluster scale of Thinking showed an upward trend for both the treatment group and the comparison group, while post-test scores for the Feeling scale showed an upward trend for the treatment group and a downward trend for the comparison group. Both the treatment group and the

comparison group showed downward trends in post-test means on the clusters of Relating and Impetuosity.

Table 13

Means and Standard Deviations of the Pier-Harris Children's Self-Concept Scale for Treatment and Comparison Group at Pre-Test and Post Test.

		Pre	Post
Treatment Group	M	47.83	52.25
	SD	18.48	10.42
Comparison Group	M	44.83	43.17
	SD	5.57	4.40

Means and standard deviations for the total score of the Piers-Harris Children's Self-Concept Scale for treatment group and comparison group at pre-test and post-test are shown in Table 13. There were no significant main effects nor interaction effects on the Piers-Harris Children's Self-Concept Scale. Post-test means for the treatment group showed an upward trend, while post-test means for the comparison group showed a downward trend.

Means and standard deviations for the total score on the Reynolds Adolescent Depression Scale for treatment and comparison group at pre-test and post-test are shown in Table 14. There were no significant main effects nor interaction effects on the Reynolds Adolescent Depression Scale. Post-test means for the treatment group showed a downward trend, while post-test means for the comparison group showed an upward trend.

Table 14

Means and Standard Deviations for the Reynolds Adolescent Depression Scale for Treatment and Comparison Group at Pre-Test and Post-Test.

		Pre	Post
Treatment Group	M	55.75	50.92
	SD	25.69	36.31
Comparison Group	M	45.17	53.50
	SD	31.47	40.11

Data on Section C of the Behavior Data Sheets were grouped over four 5 week periods. The means and standard deviations of the four 5 week periods for treatment group are shown in Table 15.

Table 15

Means and Standard Deviations of Section C) Emotional Behavior on the Behavior Data Sheet for Treatment Group by Teachers and Social Worker at 1st 5 weeks; 2nd 5 weeks; 3rd 5 weeks; 4th 5 weeks and 1st 10 weeks versus 2nd 10 weeks.

	Teachers		Social Worker	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Section C				
1st 5 wks	4.15	.58	4.37	.54
2nd 5 wks	4.44	.31	4.27	.53
3rd 5 wks	4.45	.32	4.15	.43
4th 5 wks	4.35	.41	4.34	.47
1st 10 wks	4.26	.40	4.38	.49
2nd 10 wks	4.33	.53	4.29	.42

Likert Scale Ratings: 1=never, 2=rarely, 3=some of the time, 4=most of the time, 5=all of the time

Results of the one-way repeated measures ANOVA for the four 5 week periods on section C) Emotional Behavior ($M=4.37$, $M=4.27$, $M=4.15$, $M=4.34$) were not significant for the social worker. Nor were the results significant comparing the first 10 weeks ($M=4.38$) to the last 10 weeks ($M=4.29$). Teachers' results on the repeated measures ANOVA for the four 5 week periods ($M=4.15$, $M=4.44$, $M=4.45$, $M=4.35$), $F(3, 24) = 6.06$; $p = .003$ were significant. However, the results comparing the first 10 week period ($M=4.26$) to the last 10 week period ($M=4.33$) were not significant.

Multiple comparisons on the Behavior Data Sheets for the four 5 week periods by teachers are shown in Table 16. Follow-up multiple comparisons for repeated measures using Newman-Keuls (Kirk, 1986) technique on scores of Section C (Emotional Behavior) on the Behavior Data Sheets for teachers' for the four five week periods showed a significant difference between the first ($M= 4.15$) and second week

Table 16

Multiple Comparisons on Difference Scores for Section C (Emotional; Behavior) of the Behavior Data Sheets for the four 5 week periods by Teachers.

	Four 5 week Periods			
	X ₃	X ₂	X ₄	X ₁
<u>M</u>				
X ₃ = 4.45	-	.01	.10	.30*
X ₂ = 4.44		-	.09	.29*
X ₄ = 4.35			-	.20*
X ₁ = 4.15				
* $p < .05$				

($M=4.44$); between the first ($M=4.15$) and third week ($M=4.45$); and between the first ($M=4.15$) and fourth week ($M=4.35$); concluding that the significant changes happened

during the first 5 week period.

Qualitative analyses. Addressing the fourth hypothesis, questions 6, 10, 11 and 14 of the pre-test and post-test questionnaire for students were used. Question 6 which asked students to respond to the methods of discipline used this year, referred to the 1993/1994 traditional program in the pre-test questionnaire and to the 1994/1995 alternative program in the post-test questionnaire. Nine students expressed dissatisfaction with the methods of discipline used in the 1993/1994 program, whereas three students gave no response or did not have an opinion. On the post-test response three students stated that the discipline program was much better, two students had mixed feelings about the discipline program, and the other six students stated that the program was too harsh. When students were asked what personal methods they used to deal with emotionally difficult responses, pre-test responses indicated that six students relied on their own resources, and three stated they did nothing. Three students did not respond to the question. Post-test responses indicated that four students sought help from adult figures in the program, four students attempted to ignore conflicts, two students used acting-out behaviors such as fighting or screaming, and one student used a combination of behaviors depending on the situation. The third question in this area asked students to describe their support system at the school. Pre-test responses indicated that three of the students were satisfied with the support system, whereas nine students felt they had either a very poor or non-existent support system in the traditional program. In the post-test responses, seven students reported that they had a satisfactory support system at the alternative site, two students thought it was "very poor," one student felt no need for a support system, and one student chose not to

comment. The last question asked students to explain their expectations about themselves in the program. Pre-test responses indicated that students had reasonably high expectations for the new program. Seven students had high expectations regarding grades, high-school completion, obtaining of employment skills, and opportunities for socialization. Two students expected expulsion, one had no expectations, and two refused to comment. Post-test scores indicated that nine students had positive expectations about themselves, either to be able to return to the traditional high school or to complete high school at the alternative site. Two students had no expectations.

On the staff questionnaires, question 3 was concerned with emotionality and it asked staff to comment on the type of program or philosophy they advocated for these students, and why. On the pre-test questionnaire, the staff clearly indicated what type of program they would like to have, based on their individual experiences in working with the socially and emotionally maladjusted student. Some of their recommendations included a strong vocational component, a low student/teacher ratio, an integrated curriculum, a highly structured program, an off-site location, and an ability to have personal relationships with the students. However, staff responses did not indicate the reasons for their recommendations. After a half year of experience in the alternative program, the entire staff indicated that they would like to continue with a Montessori style program as was established for the 1994/1995 school year. They cited that the Montessorian philosophy was very satisfactory because it placed responsibility on the student for his/her behavior, allowed for flexibility in curriculum design, emphasized the importance of vocational and social skills, and provided a family-type environment. While many of the staff felt that the development of the program was in the infancy

stage, all were in agreement that the philosophy used in the development of the alternative program was sound.

Knowledge of Montessorian Philosophy

The results of a pre-test questionnaires, given to staff to determine their knowledge of Montessori philosophy, revealed that the social worker had a thorough knowledge of Montessorian philosophy. However, the other staff members had only a rudimentary knowledge of the Montessori philosophy, and quite a number of misconceptions. On a positive note, the staff consistently referred to an open classroom environment as being necessary and also identified their teaching roles to be facilitators, rather than directors. Misconceptions included beliefs that Montessori can only be successful with motivated, higher-level students, that there was no structure nor consistency to the program, and that children with behavior disorders can not be successful using this philosophy. Two teachers believed that the administrative arm of the school district would never permit the use of such a program in the school system, and the third teacher was not sure. All of the teachers indicated a need for strong administrative and clinical support in order to achieve success, but believed this was unobtainable. The post-test responses indicated some increase in knowledge of Montessori, however the teachers were still unfamiliar with the stages of development that Montessori proposed and stated that they would need more training to be comfortable in applying the philosophy to the population they were serving. At the same time, responding to questions 11 and 12, the staff expressed strong beliefs in their abilities to be successful in implementing this program with the socially and emotionally maladjusted population into their classrooms. However, the staff generally held on to

the belief that such goals would be unobtainable due to lack of administrative support.

They believed that success would only be obtained if the program could prove to be cost-effective.

Chapter V

Discussion

The major purpose of this study was to evaluate an alternative high school program that used a Montessorian philosophy. Adolescents diagnosed as Socially and Emotionally Maladjusted comprised the student body. The four hypotheses were: An alternative high school program based on Montessori philosophy 1) enhances academic relevance; 2) improves academic achievement; 3) enhances social development; and 4) improves the emotional well-being of the Socially and Emotionally Maladjusted students. It was expected that the Montessori concept of educating the whole child would be beneficial to this Socially and Emotionally Maladjusted population because it integrates the social, emotional, physical, and intellectual needs of the student. These questions were addressed through a series of analytical procedures using a combination of standardized testing measures, self-report measures, and behavioral observational measures. In this chapter the interpretation of the results, the limitations of the study, and the implications for future reserach will be discussed.

Academic Relevance

The first hypothesis focused on the enhancement of academic relevance for Socially and Emotionally Maladjusted students using a program based on Montessorian philosophy. Both quantitative and qualitative methods were used to address this question. Analytical procedures were performed to determine if there were differences on the dependent measures of: 1) number of absences, 2) number of in-school

suspensions, and 3) number of out-of-school suspensions. Qualitative data on program satisfaction were collected from students and staff at the alternative school through the use of questionnaires.

Revealed was a significant difference between pre-test and post-test scores for the treatment group on number of out-of-school suspensions, however this significance should be interpreted with caution. Unlike the methods of dealing with discipline problems in the traditional school, and consistent with Montessorian philosophy, out-of-school suspensions were discouraged in the alternative school. Only severe discipline problems, such as substance abuse and fire-setting, resulted in out- of-school suspensions, and those students exhibiting such behaviors had left the program before the second month of the school year and were not included in this study. In the traditional school, students received out-of-school suspensions for offenses such as verbal abuse and acting-out behaviors, as well as for the more serious offenses mentioned above. There were no significant differences for pre-test and post-test scores on absences and in-school suspension.

Even though there were no significance findings for number of absences and number of in-school suspensions for the treatment group, absences and suspensions have been common practice for these students. An examination of the means for absences revealed a downward trend in post-test scores for both the treatment group and the comparison group, whereas the means for in-school suspensions showed an upward trend. Records for both groups of students indicated that the more days they were in school, the more days they were in trouble. However, the increase of in-school suspensions for the treatment group may be an artifact of the change in philosophy

regarding out-of-school suspensions by the administrator at the alternative site. Except for severe disruptive behaviors, students were given in-school suspensions for inappropriate behaviors.

Student responses to questionnaires. Results of the pre-test and post-test questionnaires indicate that students clearly expressed more satisfaction with the alternative program as opposed to the traditional program. Greater satisfaction with the alternative program may account for the improved attendance as the year progressed. Students reported the method of discipline and the opportunity to have a formal physical education program at the YMCA as contributing most to their satisfaction. Some students expressed concerns that the physical location of the building was too far from their hometown. In pre-test responses, only four students expected to complete high school, in contrast, eight of the students in the post-test questionnaires expected to be able to successfully complete high school if they could stay in the alternative program.

Staff responses to questionnaires. The staff responses to pre-test and post-test questionnaires on program efficacy indicated greater satisfaction with the alternative program as compared to the traditional program. Responses to program efficacy for the 1993/1994 school year were mixed, whereas responses to program efficacy for the 1994/1995 school year indicated that all three teachers and the social worker believed that the 1994/1995 program met its stated goals. Staff concerns with last year's program included the self-contained classrooms, the absence of structure, and the degree of social and emotional disorders the students expressed. In contrast, staff

indicated that the sense of community, the program of study, and the student accountability contributed to the success of the new program in meeting its stated goals.

Program integrity also met with mixed responses by staff on the pre-test questionnaire. Although some of the teachers stated that attempts were made to adhere to curriculum goals, the severity of the students' behaviors made adherence difficult. For example, teachers expressed difficulty in keeping students focused on tasks when students arrived at school under the influence of drugs, unfed, and tired. Post-test responses were also mixed. Positive responses were associated with the use of weekly lesson plans and the focused attention on curriculum goals on an individualized basis. The negative responses were associated with the lack of experience in implementing an integrated curriculum.

Although quantitative results generally were not significant for this hypothesis, the direction of the means for number of absences and the positive responses to post-test questionnaires by both students and staff, suggest that the program may be having some impact on improving academic relevance for these students.

Academic Achievement

The second hypothesis focused on the improvement of academic achievement by the students using a program based on Montessorian philosophy to educate the Socially and Emotionally Maladjusted adolescent. Both quantitative and qualitative methods were used to address this question. Analytical procedures were employed to determine if there were differences on the five clusters on the Woodcock Johnson Test of Achievement (i.e., Broad Reading, Broad Mathematics, Broad Written Language,

Broad Knowledge, and Skills), and two school grades of (i.e., Language Arts, and Mathematics), and to determine if there were differences over time for the treatment group on the Behavior Data Sheets for academic achievement. Qualitative data were collected from students and staff at the alternative school through the use of questionnaires on program satisfaction.

Although there were no significant findings on the cluster scores of the Woodcock Johnson Test of Achievement nor on the Language Arts or Mathematics score, the treatment group showed a rise in means for the cluster scores of Broad Mathematics, Broad Written Language, and Skills, as well as a rise in means on the grades for Language Arts and Mathematics. Whereas the control group also showed a rise in means for the three cluster scores of Broad Mathematics, Broad Written Language, and Skills, they showed a decrease in means in grade scores of Language Arts and Mathematics. The increase in means for subject grades may be attributed to the individualized curriculum, the small teacher to pupil ratio (i.e., 1:3), and the small class size provided at the alternative school. Many of the students, although within the low average to high average range of intelligence, are achieving test scores which are several grades below the expected norm for their age group. The teacher to pupil ratio allowed one-on-one attention to students having difficulty with the subject matter. Individualized instruction may have shown immediate improvement in specific subject areas because students responded better and were more willing to complete tasks when the teacher was able to give undivided attention. The use of small groups and the opportunity to allow for individualized learning styles seem to meet the needs of these students. However, the program had been in force for only five months when this

study was completed, and this time frame may not have been long enough to see significant results on standardized testing.

Results for the academic portion (i.e., time on task, following directions, and lesson participation) of the Behavior Data Sheets showed no significant differences for the social worker nor the teachers for comparison of the four 5 week periods and the two 10 week periods. The means over the twenty week period showed a downward trend, indicating that the social worker perceived the students' behaviors to be less appropriate over time. Because the social worker was newly hired in August of 1994, she had no previous relationships with these students, which initially colored her evaluation of their behaviors in the classroom. She also spent only two days a week at the school which made it more difficult for her to develop relationships with the students. Curriculum goals, focused on the prevention of violence in our society, tended to incite many challenging behaviors in the students. The teachers' means for the four 5 week periods, initially rose after the second 5 week period, and showed a downward trend for the third and fourth 5 week periods. There was a downward trend in the means for the second 10 week period from the first 10 week period, and this may have been attributed to the time of year. The first 10 week period ended November 4th. The next 10 week period included the Thanksgiving and Christmas holidays. The extra activities planned during this period created many disruptions in the normally structured day.

Students responses to questionnaires. Results of the pre-test questions, addressing newly learned academic skills, indicated that the majority of the students felt that they had learned nothing the previous year. In contrast, 9 students reported new

learning in specific academic areas on the post-test questionnaire. Results of the pre-test and post-test questions, addressing newly learned vocational skills, indicate that the students perceived little difference between the two programs in the opportunity to learn new skills. Pre and post-test results addressing learning styles seemed to indicate that the students had a clearer understanding of their learning styles after spending five months in the alternative program, preferring both small group and individualized instruction.

Staff responses to questionnaires. Pre and post-test questionnaires asked staff to describe the types of difficulties encountered while working with Socially and Emotionally Disturbed students either at the Traditional site or the Alternative site. The staff indicated that problems in dealing with this population in the traditional program were related to a) the rigid structure of the program, b) difficulties with other staff and administrative personnel, and c) the inability of adolescents to abide by the traditional rules. Problems associated with the alternative program included difficulties in providing the wide range of services needed and problems in dealing with students' low self-esteem.

Despite the lack of significant results for this hypothesis, the trend in grade score improvement by the treatment group is a positive sign. The students' understanding of their personal learning styles and their beliefs that they have learned new academic skills are also positive indications that the Montessorian philosophy may contribute to improved academic achievement.

Social Development

The third hypothesis focused on the enhancement of social development for the students using a program based on Montessorian philosophy to educate the Socially and Emotionally Maladjusted adolescent. Both quantitative and qualitative methods were used to address this question. Analytical procedures were employed to determine if there were differences on the dependent measures of the Youth Self-report and the Teacher's Report Form for the treatment group and the comparison group and to determine if there were differences over time for the treatment group on the Behavior Data Sheets for social development. Qualitative data were collected from students and staff at the alternative school through the use of pre and post-test questionnaires on program satisfaction.

There were no significant differences on the three scales of Total Score, Internalizing Score, and Externalizing Score on the Youth Self-report. Nor were there significant differences for the three scales on the Teacher's Report Form. A downward trend in the means was shown for the three scales of the Youth Self-report and the three scales of the Teacher's Report Form for the treatment group and the comparison group, with one exception. The comparison group showed an increase in the means on the Internalizing Score of the Youth Self-Report. Scores above 70 on any of these scales indicates clinically significant behaviors and scores between 67 and 70 are considered to be in the borderline range. The scores for the comparison group increased from a mean of 64.50 to a mean of 65.33 at post-test. This downward trend, as reported by both students and teachers, may indicate a decrease in acting-out behaviors; however, the

introduction of a new behavior management plan in the post-test period created problems of interpretation by the teachers, and some confusion by the students.

Comparisons of the teachers and social worker ratings for Community/Social Behavior and Physical Development on the Behavior Data Sheets showed no significant differences for the four 5 week periods nor the two 10 week periods. Again, we should consider the time frames involved, and the difficulties in maintaining structure during holiday periods.

Students responses to questionnaires. Opportunities to socialize and relationships with teachers and staff were addressed on the pre-test and post-test questionnaires. Although the majority of students expressed dissatisfaction with their opportunities to socialize while attending the traditional program, the majority of the these same students expressed satisfaction with the alternative program stating that this program provided ample opportunities to socialize, through the use of break time and the intimacy of the small environment. Those students dissatisfied with the traditional program cited isolation as a cause of dissatisfaction. Although they were in the traditional school building, all classes, lunch breaks, and activities were held separately from the other students in the high school. In addition, the classrooms were located in the basement of the building away from most other classrooms. In contrast, those students dissatisfied with the alternative program cited lack of enough friends and the constant monitoring as being problematic. The majority of the students reported unsatisfactory relationships with teachers and other staff while enrolled in the traditional program, whereas the majority of the students reported satisfactory relationships with teachers and staff while enrolled in the alternative program. The improvement in

relationships between teachers, staff, and students in the alternative program may be attributed to a number of factors. Specifically, in the alternative program a) there were only 21 students in the program at the end of the study, b) the student/ teacher ratio was 3:1, and c) staff and students participated in all meetings, breaks, and meals together. Students had ample opportunity to interact with the teachers and other staff members, including the program director, outside of the classroom.

Staff responses to questionnaires. Staff responses to questions concerning the ability of the program to meet the students' needs were mixed on both pre and post-test questionnaires. Positive responses to the traditional program on the pre-test questionnaire credited the use of team teaching, whereas lack of administrative support was associated with its failure to meet the students' needs. Positive responses on the post-test questionnaire cited a) the small teacher/student ratio, b) the flexibility of the program, c) staff commitment, and d) the intimate home-like environment as reasons associated with meeting the students' needs in the alternative program. Negative responses were associated with the lack of physical space and the lack of sufficient curriculum material. Whereas some staff members reported that they were isolated and without administrative support in the traditional program, the staff in the alternative program stated unanimously that they had adequate administrative support.

Although there were no significant quantitative findings in this section, the students' perceptions of ample opportunities to socialize and their improved relationships with teachers and staff indicate that the program may contribute to their social development. There was also an indication that the staff felt supported by the administration in the implementation of the alternative program. Because a major factor

in an alternative program's success is associated with a high level of administrative support (Winborne, 1991; Eichinger, 1984) this indication is important.

Emotional Well-Being

The fourth hypothesis focused on the improvement of the emotional well-being of students using a program based on Montessorian philosophy to educate the Socially and Emotionally Maladjusted adolescent. Both quantitative and qualitative methods were used to address this question. Quantitative data included the four clusters of Thinking, Feeling, Relating, and Impetuosity on the Structured Pediatric Psychosocial Interview, the total score of the Piers-Harris Children's Self-Concept Scale, the total score of the Reynolds Adolescent Depression Scale, and the Emotional Behavior section of the Behavior Data Sheets. Qualitative data were collected from students and staff at the alternative school through the use of questionnaires on program satisfaction.

There were no significant differences between pre and post-test scores for the four cluster scales of the Structured Pediatric Psychosocial Interview. Nor were there significant differences for pre-test and post-test scores of the Piers-Harris Children's Self-Concept Scale and the Reynolds Adolescent Depression Scale. The direction of the means for the treatment group on the Feeling cluster of the Structured Pediatric Psychosocial Interview were interesting. The scale has a mean of 5 and a standard deviation of 2. The treatment group means on the Feeling scale rose from a mean of 6.54 on the pre-test score to a mean of 7.73 on the post-test score, which may indicate that these students are dealing with social experiences in groups more explicitly. A focus in the alternative school program was an attempt to teach students to relate in groups,

and it took the group at least four months to understand the concept of group activities and group responsibility. The mean scores on the Relating scale lowered from a pre-test mean of 7.27 to a post-test mean of 6.18, which may indicate an improved ability to relate to peers and adults. Post-test questionnaire responses discussed earlier indicated that the students perceived themselves as having good relationships with both teachers and staff at the alternative site. In contrast, the means for the comparison group on the Thinking scale rose from pre-test of 7.50 to post-test of 8.33. Both scores are in the clinical range and may indicate that the students at the traditional site are preoccupied with external events and perceive other persons or circumstances as causes of distress (Webb & Van Devere, 1990).

Post-test scores for the Piers-Harris Children's Self-Concept Scale showed a rise in percentile rank from 36 on the pre-test scores, to a percentile rank of 46 on the post-test scores. Although this is not a significant difference, it may indicate movement toward more positive self-esteem. One of the major difficulties at the traditional site was the problem of isolation. Even though the alternative school site was located about 15 miles from the traditional school, and hence could be considered isolated, these students were not reminded daily of their differences through the use of exclusion, as practiced in the traditional school. They also were not faced daily with uninvolved staff who responded negatively to them.

Again, though not significant, scores on the Reynolds Adolescent Depression Scale lowered for the treatment group on post-test. Conversely, scores for the comparison group rose on the post-test. Scores must be 77 or above to be considered clinically significant on this scale; pre-test scores and post-test scores for the treatment

group were 55.75 and 50.92 respectively, and for the comparison group 45.17 and 53.50 respectively.

The ratings by the social worker on the Emotional Behavior section of the Behavior Data Sheet showed no significant differences for the four 5 week periods nor for the two 10 week periods. However, ratings by the teachers showed a significant difference from week to week with a steady rise in the means over the first three 5 week periods and a slight decrease in the means for the last 5 week period. This rise in the means suggests that the teachers perceived the students' behaviors as improving over time, with exception of the last 5 week period. As mentioned earlier, external events seemed to directly influence the behaviors of this group. In addition, during the last 5 week period, four new students entered the program. This changed the dynamics of the interactions of not only the students but also the staff. The necessity of calling the police to the building and having the student arrested created a very tense atmosphere. Earlier in the program police had been called to the school when one student attempted to burn down the building. There was an increase in aggressive behaviors by the students for a few days, but given the program was so new at that time, normal routine was established rather quickly. By the time of the second incident the students were much more comfortable with staff and understood the consequences of their behaviors more clearly. Because the severely punitive measures of out-of-school suspensions were rarely used, many of the students felt comfortable in expressing some hostile behaviors without fear of severe consequences. Many of these acting out behaviors were discussed in the Friday morning meetings and students participated in decision making regarding consequences.

Student responses to questionnaires. Responding to the pre and post-test questionnaires on the section targeting emotional behavior, the majority of the students, on the pre-test questionnaire, were dissatisfied with discipline methods used at the traditional school. Slightly fewer students were dissatisfied with the discipline methods used at the alternative school, although there were still many who felt the discipline methods were too harsh. In response to questions pertaining to personal methods of handling emotional problems, there was a clear indication that the students in the alternative program relied much more heavily on adult figures and/or more appropriate methods of dealing with conflict, such as taking voluntary time-outs and asking for a session with the social worker or the school psychologist. Students at the alternative site also indicated that support systems were adequate, whereas the majority of these students indicated that they had very unsatisfactory support systems when at the traditional school. When asked to explain their expectations for themselves in the new program at pre-test only four students had expectations of either completing school or getting an education; the rest of the students either had no expectations or believed that they would be “kicked out” of the program. At post-test, nine of the students gave positive expectations, such as completion of high school, better grades, employment skills, and opportunities for socialization.

Staff responses to questionnaires. Pre-test responses by staff about types of programs they would like to have for this population included programs having: a) a vocational component; b) low student/teacher ratios; c) an integrated curriculum; d) a highly structured program; e) an off-site location; and f) the opportunity to have better relationships with students. Post-test responses to this question indicated that the staff

would like to continue with the Montessorian model program which they had experienced for the past five months. They cited a) flexibility in curriculum design, b) emphasis on vocational and social skills, c) the home-like environment, and d) the placement of responsibility on the student for his/her behaviors, as key reasons why they would advocate continuing the program.

Although there were no significant differences between the treatment group and the comparison group on the standardized instruments, there were trends in the directions of the means showing improvement for the treatment group in all of the emotional well-being areas examined. There were significant differences in behaviors over the four 5 week periods as reported by the teachers on the Behavior Data Sheets. The results indicated that the first 5 week period was significantly different from the other three 5 week periods, showing that behaviors improved after the early stages of the program. Several factors may contribute to an understanding of these changes. In the early weeks of the study, the program was new, the facility was at a new location, and both the staff and the students were dealing with a non-traditional behavior plan. In addition four of the most disruptive students in the district were removed from the program due to seriously disruptive behaviors such as fire setting and substance abuse. These expulsions happened within the first 5 week period and greatly reduced severe acting out behaviors in the group. These students were not included in the study, however their behaviors greatly affected the behaviors of the entire group. Student responses to the questionnaires indicated that they were feeling more supported in the alternative program and that they had increased their expectations about themselves. These are positive signs in terms of improving the emotional well-being of these

students. Additionally, staff satisfaction with the program enabled staff to respond positively to student's needs.

Summary of the Findings

Although significance for the pre and post-test comparisons on the a) number of absences, b) number of in-school suspensions, c) number of out-of-school suspensions, d) the Woodcock Johnson Test of Achievement, e) the Structured Pediatric Psychosocial Interview, f) the Youth Self-Report, g) the Teacher's Report Form, h) the Piers-Harris Children's Self-Concept Scale, and I) the Reynolds Adolescent Depression Scale were not realized, in each trial there were trends in the means indicating that the program may be having a positive impact on academic relevance, academic achievement, social development, and the emotional well-being of students in the alternative school. Significant findings were realized in the analyses of the Behavior Data Sheets, which may indicate that behaviors were changing positively over time through the use of the Behavior Management Policy designed to facilitate respect for the individual, acceptance of personal responsibility, and the resolution of conflicts.

Limitations of the Study

There are several clearly identified limitations of this study. The primary limitation is concerned with the small number of subjects. Although the initial program was to have had nineteen students, the loss of seven of these students within the first few months reduced the treatment group number to 12. There was also a loss of two students from the comparison group during the course of the study, reducing that group

to six. Although both the numbers of students at the alternative site and at the traditional site increased over the time period, they entered the programs too late to be included in the study.

This study was conducted over a five month period of time, which encompassed only two marking periods. The administration had requested a mid-year evaluation. Given the severity of the students' social and emotional difficulties as well as their academic weaknesses, a longer period of time may be necessary before noteworthy changes can be observed.

Another serious limitation of the study is the lack of treatment integrity. None of the teaching staff was familiar with Montessorian philosophy and all had used Traditionalist philosophy in the classroom for several years. In addition, none of the teachers had been trained in the development and presentation of an integrated curriculum. They were resistant to any interference with curriculum development. Although workshops were presented, and in the case of one teacher, a mentor was hired, the teaching staff had not established an integrated curriculum at the time the study was completed. The teachers also had a particularly difficult time adjusting to the new Behavior Management Plan because they had been oriented and trained in the use of behavior modification as a means of controlling disruptive behavior. The Montessorian philosophy advocated that students take responsibility for their own behavior. Montessori eschewed rewards and punishments (Bentley, 1965). Although the Mission Statement referred to respect, responsibility, and resolution as a means of handling discipline problems, the teachers often wanted to use more punitive measures. This created a great deal of tension between the program director and the social worker,

who were strong advocates of Montessorian philosophy, and the staff, who were strong behaviorists.

Another limitation of this study was the lack of Montessori educational teachings in the students' primary years. Montessori developed her program of education beginning with the primary years, which she believed were critical to later development. It was in these early years that Montessorian trained children learned techniques of self-discipline and a sense of community (Montessori, 1966).

This program was established by the school administrators as an experimental project, and budgetary constraints necessitated waiting until July of the 1994/1995 school year to get funding. The amount of last-minute work and limited availability of staff during summer months hindered adequate curriculum coordination. An advantage to last minute programming gave staff the opportunity to include the students in the development of the physical environment. This fostered an initial sense of community and belonging which, under different circumstances, might have taken longer to establish.

To summarize, limitations of this study were a) small sample size, b) short duration of the study, c) problems with treatment integrity (i.e., teachers limited knowledge of Montessorian philosophy, lack of an integrated curriculum, and difficulty implementing the new Behavior Management Plan), d) students' lack of foundation in Montessorian education system, and e) limited time for curriculum coordination.

Implications for Future Research

Given the positive direction of many of the post-test means, a justification for further longitudinal study is indicated. Children diagnosed as socially and emotionally maladjusted have difficulty learning in a traditional setting. A program intending to improve the academic relevance and achievement of these students must first address the emotional needs of the student. Because this study indicates that the program may be improving the emotional well-being of the student, a study encompassing a longer period of time may show an improvement in academic relevance and achievement as a consequence of improved attitudes and motivation. Any further research, however, should include a larger sample size with carefully controlled comparison groups.

Future programs using Montessorian philosophy would benefit with a combination of teachers who are trained in special education and Montessori techniques, ideally trained in both disciplines. Montessorian training programs provide specific training for children with special needs, and teachers trained in this manner would be ideal. Often, however, Montessorian trained teachers are not willing to work in the public school setting due to the restrictions of curriculum presentation. For those teachers who are not Montessori trained, special training sessions in Montessorian theory and practice, as well as training in program integration, would be beneficial. The use of Montessorian materials may also enhance classroom competency, however, such materials require Montessorian training to be used effectively.

Summary

This study evaluated an off-site alternative high school program which used a Montessorian philosophy in its development and implementation. All of the subjects had been diagnosed as Socially and Emotionally Maladjusted and had been previously placed in a self-contained classroom for behaviorally disordered students in a traditional high school. The Board of Directors became disenchanted with the program after three years due to a 78% yearly attrition rate. An alternative program was proposed and accepted. Nineteen of the most behaviorally disordered students were placed at the alternative site and those students considered more manageable were left at the traditional high school. Students at the alternative site comprised the treatment group and students left at the traditional school, the comparison group. Both quantitative and qualitative evaluation was designed to determine if the program had an impact on improving academic relevance, academic achievement, social development, and emotional well-being.

Results indicate that the use of a Montessorian philosophy as the basis for an alternative high school program may enhance the emotional well-being of Socially and Emotionally Maladjusted adolescents. Although statistical significance was not established for academic achievement or social development the trend of the means for all measurements reflected a positive direction for the treatment group. Conversely, the trend of the means on the majority of the measurements for the comparison group were either negligible or negative.

Qualitative results indicated that students in the treatment group expressed more confidence in their ability to achieve academically and greater satisfaction regarding

social opportunities at the alternative site. Students often mentioned how helpful the small classes and the individualized attention were in facilitating learning. Many students commented on the opportunity to interact with peers and staff during breakfast, breaks, and lunch periods. Students indicated that they felt an integral part of the program because they were involved in the preparation of meals, the purchase of necessary furniture and equipment, and the refurbishing and maintenance of the facility. They also were encouraged to negotiate new policies and procedures. Another indicator of their active involvement was their attendance at the open house held for their parents.

Prior research indicated that Socially and Emotionally Maladjusted adolescents have not responded well to the Traditionalist method of discipline and education. Research has shown that they are likely to respond positively to the following: individualized instruction, non-competitive programs, flexibility in teaching methods, strong parental support, social skills training, self-esteem curriculum, caring adults, counselor interest, and trusting relationships. The basic tenets of Montessorian philosophy incorporated into the program under study mirror many of the above-mentioned positive criteria.

The present study has established that an alternative school using a Montessorian philosophy is worthy of further study to corroborate findings that such a program can be successful in improving the academic relevance, academic achievement, social development, and emotional well-being of the Socially and Emotionally Maladjusted adolescent. More significant results may be found through the use of a longitudinal study and a larger sample size.

References

- Achenbach, T.M. (1991). Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T.M. (1991). Manual for the Teacher's Report Form and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T.M., & Edelbrock, C. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four to sixteen. Monographs of the Society for Research in Child Development, 46 (Serial No. 188).
- Ainsworth, M.D.S. (1979). Infant-mother attachment. American Psychologist, 34, 932-937.
- Arthur, Richard F. (1989). How to help gangs win the self-esteem battle. School Administrator, 46(5), 18-20.
- Banks, D. (1987). This dropout prevention program is a bold alternative to alternative education. American School Board Journal, 174(7), 25-26, 40.
- Barker, R. (1986). The farm experience: Its importance in a child's life. The N.A.M.T.A. Journal, 12, 11-12.
- Bentley, R. (1965). The Montessori method-Maria Montessori. New York: Stokes.
- Borduin, C.M., & Mann, B.J. (1987). On keeping out of the briar patch: A family-ecological systems approach to treating the behavior problems of creative adolescents. Psychotherapy-Patient, 4(1), 75-90.
- Bowlby, J. (1969). Attachment and loss: Vol 1: Attachment. New York: Basic Books.
- Bucci, J.A., & Reitzammer, A.F. (1992). Teachers make the critical difference in dropout prevention. Educational Forum, 57, 63-70.
- Buroker, C.D. (1993). Parent education: Key to successful alternative education programs. Journal of School Leadership, 3(6), 635-645.
- Cahn, S.M. (1970). The philosophical foundations of education. New York: Harper & Row.
- Connecticut Coalition for Children (1994). Legislative agenda presented to the Connecticut legislature, January 27, 1994. Hartford, CT.

Coopmans, J.H. (1984). A preliminary study concerning the Middenschool experiment. Studies in Educational Evaluations, 10(3), 329-331.

Cremin, L.A. (1964). The transformation of the school: Progressivism in American education; 1876-1957. New York: Vintage Books.

Dewey, J. (1916). Democracy and education. New York: Macmillan.

Education of the Handicapped Act Amendments of 1986, 20 USC 1400 of Pub. L. No. 99-457.

Edwards, A. (1985). Experimental design in psychological research. New York: Harper & Row.

Eichinger, L. (1984). When one program fizzled and another flourished, I discovered what it takes to succeed with alternative education. American School Board Journal, 171(2), 34-35.

Europa, E. (1982). Alternative education: An educational support program - Union City's innovative prototype for alternative education. New Jersey Educational Association Review, 55(9), 16-17.

Fine, M. (1990). Making controversy: Who's "at risk"? Journal of Urban and Cultural Studies, 1(1), 55-68.

Friend, T. (1988, December 5). More teens are dying violently. USA Today, p. A

Gagnon, J. (1989). Super ANOVA: Accessible Linear Modeling. Berkeley, CA: Abacus Concepts.

Gang, P. (1982). Montessori secondary education. Family Life, 1(1), 8, 9, 17-19.

Gerics, J., & Westheimer, M. (1988). Dropout prevention: Trinkets and gimmicks or Deweyan Reconstruction? Teachers College Forum, 90(1), 41-60.

Gillespie, D., & Hillman, S.B. (1993). Impact of self-efficacy expectations on adolescent career choice. Paper presented at the annual meeting of the American Psychological Association, Canada: Toronto, Ontario.

Gittelman, R.F., Mannuzza, R.F., & Bonagura, N. (1985). Hyperactive boys almost grown up: I. Psychiatric status. Archives of General Psychiatry, 42, 937-947.

Gittman, B. (1991). P.A.C.E.: Program for alternative comprehensive education, Evaluation report. Nassau county Board of Cooperative Educational Services, Westbury, NY.

Glaser, M.A. (1992). After the alternative elementary program: A promise of continued student success? Urban Review, 24(1), 55-71.

Gold, M., & Mann, D.W. (1987). Expelled to a friendlier place: A study of effective alternative schools. Ann Arbor: The University of Michigan Press.

Gordon, S. (1985). When living hurts. New York: Union of Hebrew Congregations.

Gottfredson, D.C. (1987). An evaluation of an organization development approach to reducing school disorder. Evaluation Review, 11(6), 739-763.

Harkavy-Friedman, J., Asnis, G., Boe, M., & DiFiore, J. (1987). Prevalence of specific suicidal behaviors in a high school sample. American Journal of Psychiatry, 144, 1203-1206.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112(1), 64-105.

Henker, B. & Whalen, C. (1989). Hyperactivity and attention deficits. American Psychologist, 44(216-223).

Hull, Jon D. (1993, August). A boy and his gun. Time, 20-27.

Jackard, C.R. (1988). Reaching the under challenged, marginal, or at-risk student. Clearing House, 62(3), 128-130.

Johnson, H.R. (1982). Alternative schools: A salvage operation? Clearing House, 55(7), 316-318.

Kahn, D. (1980). Montessori elementary. Cleveland, Ohio: NAMTA.

Keen, J. (1989, February 2). USA schools wrestle with kid violence. USA Today, p.A1.

Kennedy, J., Mitchell, J.B., Klerman, L.V., & Murray, A. (1976). A day school approach to aggressive adolescents. Child Welfare, LV(10), 712-724.

Kirk, R.E. (1968). Experimental design: Procedures for the behavioral sciences. Belmont, CA: Wordsworth.

Leder, M. (1987). Dead serious: A book for teenagers about teenage suicide. New York: Atheneum.

Lee, V. (1990). Increasing prosocial competence of at-risk adolescents through a social skills training program. Dissertations/Theses - Practicum Papers (043). Ohio.

Lillard, P.P. (1972). Montessori: A modern approach. New York: Schocken Books.

Loeber, R., & Dishion, T.J. (1983). Early predictors of male delinquency: A review. Psychological Bulletin, 94, 68-99.

Loney, J., Kramer, J., & Milich, R. (1979). The hyperkinetic child grows up: Predictors of symptoms, delinquency, and achievement at follow-up. Paper presented to the American Association for the Advancement of Science, Houston, TX.

Maier, S.F., & Seligman, M.E.P. (1976). Learned helplessness: Theory and evidence. Journal of Experimental Psychology: General, 105, 3-46.

Maine State Department of Educational and Cultural Services (1992). Dropout and alternative education. Augusta: Office of Truancy.

Martin, R.P. (1988). Assessment of personality and behavior problems: Infancy through adolescence. New York: The Guilford Press.

Mayfield, M. (1986, December 8). Assaults top the list of classroom chaos. USA Today, p. A10.

McCall, Robert B. (1986). Fundamental statistics for behavioral sciences. San Diego: Harcourt Brace Jovanovich.

Memmot, C., & Stone, A. (1989, June 15). Firearms and youngsters: Deadly, tragic mix. USA Today, p. A3.

Mesinger, J.F. (1982). Alternative education for behavior disordered and delinquent adolescent youth: What works--maybe? Behavioral Disorders, 7(2), 91-100.

Mesinger, J.F. (1986). Alternative education for behaviorally disturbed youth: A promise yet unfulfilled. Behavioral Disorders, 11(2), 98-108.

Montessori, M. (1973). From childhood to adolescence. New York: Schocken Books.

Montessori, M. (1973). From childhood to adolescence (p. 97). New York: Schocken Books.

Montessori, M. (1966). The secret of childhood. New York: Ballantine Books.

Montessori, M. (1964). The Montessori method. New York: Schocken Books.

Mosher, R.L. (1978). A democratic high school: Damm it, your feet are always in the water. Character Potential: A Record of Research, 8(4), 196-217.

National Information Center for Children and Youth with Disabilities (1991). Disabilities which qualify children and youth for special education services under the Individuals with Disabilities Act (IDEA). Washington, D.C.

Parker, J.G., & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low accepted children at risk? Psychological Bulletin, 102, 357-389.

Pelham, W.E. & Bender, M.E. (1982). Peer relationships in hyperactive children: Description and treatment. In K.D. Gadow & I. Bialer (Eds.), Advances in learning and behavioral disabilities: A research annual, 1(365-436). Greenwich, CT: JAI Press.

Pfeffer, C. (1986). The suicidal child. New York: Guilford.

Piers, E.V. (1984) Piers-Harris Children's Self-Concept Scale Los Angeles, California: Western Psychological Services.

Poland, S. (1993). Crisis intervention and the schools. Communiqué, 22(4), 11-12.

Prause, D.P. (1991). Children's rights and the educational enterprise: Form versus function. School Psychology Review, 20(3), 359-368.

Reynolds, W.M. (1987). Reynolds Adolescent Depression Scale manual. F1: Psychological Assessment Resources, Inc.

Roosa, M.W., Beals, J., Sandler, I., & Pillow, D.R. (1990). The role of risk and protective factors in predicting symptomatology in adolescent self-identified children of alcoholic parents. American Journal of Community Psychology, 18(5), 725-741.

Ross, C. (1985). Teaching children the facts of life and death: Suicide prevention in the schools. In M. Peck, N. Farberow, & R. Litman (Eds.), Youth suicide (pp. 147-169). New York: Springer.

Ross, P. (1979). Trouble in school: A portrait of young adolescents. New York: Avon Books.

Rotter, J.B. (1954). Social Learning and Clinical Psychology. New York: Johnson Reprint Company.

Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 81 (1, Whole No. 609).

Rotter, J.B. (1975). Some problems and misconceptions related to the construct of internal versus external reinforcement. Journal of Consulting and Clinical Psychology, 43, 56-67.

Rubin, K. II, & Clark, M.I. (1983). Preschool teachers' ratings of behavioral problems: observational, sociometric, and social-cognitive correlates. Journal of Abnormal Child Psychology, 11, 273-285.

Sarason, S.B. (1983). Schooling in America: Scapegoat and salvation. New York: The Free Press.

Sattler, J.M. (1988). Assessment of children. San Diego: Jerome M. Sattler.

Schubert, W.H. (1986). Curriculum: Perspective, paradigm, and possibility. New York: Macmillan Publishing Company.

Shaw, Carl N. (1975). A comparative study of students in alternative and traditional high schools. Education, 96(1), 28-35.

Silvestri, K.L. (1986). The re-emergence of alternative education: Some lessons. Equity and Choice, 3(1), 25-27.

Smith-Davis, J. (1985). A sampler of education programs for adolescents. Pointer, 29(2), 47-50.

Smith, K., & Crawford, S. (1986). Suicidal behavior among "normal" high school students. Suicide and Life-Threatening Behavior, 16, 313-325.

Sroufe, L.A. (1979). Emotional development in infancy. In J. Osofsky (Ed.), Handbook of infant development. New York: Wiley.

Standing, E.M. (1959). Maria Montessori: Her life and works. Fresno, CA: Academy Guild Press.

Standing, E.M. (1966). The Montessori revolution in education. New York: Schocken Books.

Thomas, A., & Grimes, J. (1990). Best practices in school psychology-II. Washington, D.C.: The National Association of School Psychology.

Thrush, U. (1978). Maria Montessori's Erdkinder experiment. The N.A.M.T.A. Quarterly, 3, 1-10.

Thrush, U. (1978). Maria Montessori's Erdkinder experiment. The N.A.M.T.A. Quarterly, 3(1), 44.

Tyler, R.W. (1949). Basic principles of curriculum and instruction. Chicago: The University of Chicago Press.

Vidal, J. (1986, October). Establishing a suicidal prevention program. National Association of Secondary School Principals Bulletin, 68-72.

Webb, T.E., & Van Devere, C.A. (1991). SPPI Manual. Akron, Ohio: Fourier.

Wechsler, D. (1991). Wechsler Intelligence Scale for Children - Third Edition (WISC-III) Manual. San Antonio, TX: The Psychological Corporation.

Wikramaratne, L. (1980). Thoughts on the Erdkinder project. The N.A.M.T.A. Quarterly, 5, 21-23.

Winborne, D.G. (1991). Will school choice meet students' needs? Principals' views. Education and Urban Society, 23, (2), 208-218.

Witt, J.C., Heffer, R.W., & Pfeiffer, J. (1990). Structured rating scales: A review of self-report and informant rating processes, procedures, and issues. In C.R. Reynolds and R. W. Kamphaus (Eds.), Handbook of psychological and educational assessment of children: Personality, Behavior and Context (pp. 388-389). New York: The Guilford Press.

Woodcock, R.W., & Johnson, M.B. (1989). Woodcock-Johnson Test of Achievements. Texas: DLM Teaching Resources.

Appendix A

Pre-Test Questionnaire Students

1. How would you describe your school experience last year?
 - a. What did you like about last year's program?
 - b. What didn't you like about last year's program?
2. What new academic information did you learn last year?
3. What new skills did you acquire last year?
4. How was the academic information taught to you?
5. What do you consider the best way for you to learn?
6. What did you think of the methods of discipline used last year?
7. Did your program last year allow you enough opportunities to socialize with your friends? If yes, give examples; if no, why not?
8. What type of relationships did you have with your teachers?
9. What type of relationships did you have with other staff?
10. What personal methods did you use to deal with emotionally difficult situations?
11. How would you describe your support system at the school?
12. How do you feel about being involved in this new off-campus alternative program?
13. What do you expect to get out of this program?
14. What are your expectations about yourself in this program?

Appendix B

Post-Test Questionnaire Students

1. How would you describe your school experience this year?
 - a. What did you like about this year's program?
 - b. What didn't you like about this year's program?
2. What new academic information did you learn this year?
3. What new skills did you acquire this year?
4. How was the academic information taught to you?
5. What do you consider the best way for you to learn?
6. What did you think of the methods of discipline used this year?
7. Did your program this year allow you enough opportunities to socialize with your friends? If yes, give examples; if no, why not?
8. What type of relationships did you have with your teachers?
9. What type of relationships did you have with other staff?
10. What personal methods did you use to deal with emotionally difficult situations?
11. How would you describe your support system at the school?
12. How do you feel about being involved in this new off campus alternative program?
13. What do you expect to get out of this program?
14. What are your expectations about yourself in this program?

Appendix C

Pre-Test Questionnaire
Staff Evaluation of SEM Program 1993/1994

1. How would you rate our Alternative program for the school year 1994/1995?
 - a. Program Efficacy
 1. Did the program achieve its stated goals? Y N
 2. If yes, what contributed to its success?
 3. If no, what contributed to its failure?
 - b. Program Acceptance
 1. Was the program able to meet the students' needs? Y N
 - a. If satisfied, what contributed to its success?
 - b. If dissatisfied, what contributed to its failure?
 2. Was there adequate support for you in the implementation of this program? Y N
 - c. Program Integrity
 1. Were the curriculum goals adhered to in the implementation of the program? Y N
 - a. If yes, how was this accomplished?
 - b. If no, what contributed to its failure?
2. In your opinion, what do you see as the greatest difficulty in dealing with SEM adolescents in an alternative school setting?
3. What type of program or philosophy do you advocate for these students, and why?

Appendix D

Post-Test Questionnaire Staff Evaluation of Alternative Program 1994/1995

1. How would you rate our Alternative program for the school year 1994/1995?
 - a. Program Efficacy
 1. Did the program achieve its stated goals? Y N
 2. If yes, what contributed to its success?
 3. If no, what contributed to its failure?
 - b. Program Acceptance
 1. Was the program able to meet the students' needs? Y N
 - a. If satisfied, what contributed to its success?
 - b. If dissatisfied, what contributed to its failure?
 2. Was there adequate support for you in the implementation of this program? Y N
 - c. Program Integrity
 1. Were the curriculum goals adhered to in the implementation of the program? Y N
 - a. If yes, how was this accomplished?
 - b. If no, what contributed to its failure?
2. In your opinion, what do you see as the greatest difficulty in dealing with SEM adolescents in an alternative school setting?
3. What type of program or philosophy do you advocate for these students, and why?

Appendix E

Pre-Test Questionnaire For Staff

Montessori Competence

1. Who was Maria Montessori?
2. What is your understanding of the Montessori educational philosophy?
3. What are the four stages of development identified by Maria Montessori?
4. What three objectives did she emphasize in the development of curriculum for adolescents?
5. What type of classroom structure would be expected using the Montessori philosophy?
6. What is the teacher's role in a Montessori classroom?
7. What are the potential benefits in using a Montessori philosophy with this population?
8. What are the potential problems in using a Montessori philosophy with this population?
9. What type of support system do you need to implement this philosophy?
10. What type of training do you need to implement this philosophy?
11. What is the likelihood that you would be successful in implementing this philosophy?
12. What is the likelihood that students would be successful in a program using the Montessori philosophy?
13. What is the likelihood that the administration (Superintendent of Schools, Board of Education, Special Education Director, and Principals) would be supportive of a program for adolescents which implements a Montessori philosophy?
14. Do you have any comments or questions about Montessori philosophy?

Appendix F

Post-Test Questionnaire For Staff

Montessori Competence

1. Who was Maria Montessori?
2. What is your understanding of the Montessori educational philosophy?
3. What are the four stages of development identified by Maria Montessori?
4. What three objectives did she emphasize in the development of curriculum for adolescents?
5. What type of classroom structure would be expected using the Montessori philosophy?
6. What is the teacher's role in a Montessori classroom?
7. What are the potential benefits in using a Montessori philosophy with this population?
8. What are the potential problems in using a Montessori philosophy with this population?
9. What type of support system do you need to implement this philosophy?
10. What type of training do you need to implement this philosophy?
11. What is the likelihood that you would be successful in implementing this philosophy?
12. What is the likelihood that students would be successful in a program using the Montessori philosophy?
13. What is the likelihood that the administration (Superintendent of Schools, Board of Education, Special Education Director, and Principals) would be supportive of a program for adolescents which implements a Montessori philosophy?
14. Do you have any comments or questions about Montessori philosophy?

Appendix G

Behavior Data Sheet

STUDENT: _____ DATE: _____

*Likert Scale: 1) never; 2) rarely; 3) some of the time; 4) most of the time; and
5) all of the time

CLUSTERSSCALE*

1/2/3/4/5

A. ACADEMIC BEHAVIOR1. Following Directions

- a. follows directions in a timely manner without
arguing or complaining

//_/_/_

- b. follows rules of school community

//_/_/_

2. On Task Behavior

- a. maintains concentration on an assigned task

//_/_/_

- b. stays within assigned area

//_/_/_

3. Lesson Participation

- a. pays attention to source of input, i.e., teachers,
peers, written material, or audio-visual material

//_/_/_

B. COMMUNITY/SOCIAL BEHAVIOR1. Respect for Authority - takes direction from authority

- figures such as staff members, parents, bus drivers,
administrators, etc. without displays of hostility

//_/_/_

2. Social Interaction - (within school community)

- a. contributing member of the group

//_/_/_

- b. expresses tolerance for individual differences

//_/_/_

- c. engages in constructive leisure activities

//_/_/_

3. Social Interaction - (outside school community)

- a. lives within the laws of the greater community

//_/_/_

4. Care of the Environment

- a. shows respect for the school environment

//_/_/_

- b. participates in care of school environment

//_/_/_

C. EMOTIONAL BEHAVIOR1. Verbal and Non-verbal Communication

- a. responds to staff and/or peers in an age appropriate
manner

//_/_/_

- b. initiates and engages in appropriate topics of
discussion

//_/_/_

- c. refrains from using inappropriate language

//_/_/_

Appendix G (cont'd)

2. Problem Recovery
 - a. capable of participating in mediation and/or problem solving activities _/_/_/_/_/
 - b. able to return to group after confrontation _/_/_/_/_/
3. Care and Safety of Oneself
 - a. not a danger to self or others _/_/_/_/_/
 - b. avoids dangerous situations _/_/_/_/_/
 - c. avoids the use of drugs and alcohol _/_/_/_/_/
4. Sexual Issues and Sexuality
 - a. refrains from touching self/others inappropriately _/_/_/_/_/
 - b. refrains from having or creating any pornographic materials in school _/_/_/_/_/
5. Aggression
 - a. keeps hands/feet to self _/_/_/_/_/
 - b. refrains from hitting, slapping, spitting, biting _/_/_/_/_/
 - c. refrains from making threatening statements or gestures _/_/_/_/_/
 - d. refrains from throwing objects or destroying property _/_/_/_/_/
6. Participation in Counseling
 - a. attempts to be an active member during group _/_/_/_/_/
 - b. cooperates during individual counseling _/_/_/_/_/
- D. PHYSICAL DEVELOPMENT
 1. Personal Care
 - a. groomed appropriately _/_/_/_/_/
 - b. practices good dietary habits _/_/_/_/_/
 - c. takes prescribed medication _/_/_/_/_/
 2. Activity Level
 - a. participates in physical activity, i.e., sports, games, etc. in school _/_/_/_/_/
 - b. participates in physical activity, i.e., sports, games, etc., after school or weekends _/_/_/_/_/

COMMENTS:

Appendix H

Montessori

- * Maria Montessori (1870-1952)
- * 1896 - first woman to graduate from medical school in Italy.
- * 1897 - began her work with retarded children housed in asylums and spoke on needs for research addressing causes of delinquency and lack of care for the retarded.
- * 1898 - spoke on need for reform of public schools.
- * 1899 - lecture series presented on special methods of education for retarded children.
- * 1900 - developed own teaching materials based on the philosophies of Itard and Seguin.
- * 1901 - left medical practice and focused her attention on the education of normal children.
- * 1906 - renounced all other interests to dedicate herself to the study and education of young children.
- * 1907 - First Casa Dei Bambini (Children's House) opened in Rome, an experimental program which received public recognition for its success.
- * 1909 - The Montessori Method published and first teacher training program begun and first Casa established outside of Italy and through the years the Montessori method was spread throughout the world, with particular interest in Ireland, Switzerland, India, Holland, and Spain.
- * 1911 - First Montessori School opened in America-Tarrytown, New York.
- * The next 40 years were spent lecturing internationally on education and peace, and publishing books on the Montessori method.
- * Some of her publications included: Dr. Montessori's Own Handbook, The Child in the Family, Peace and Education, The Secret of Childhood, The Absorbent Mind, and Education for a New World.
- * 1934 - Jean Piaget established the Montessori Society in Switzerland.
- * She was nominated three times for the Nobel Peace Prize and received the French Cross of Legion of Honor.

BASIC PHILOSOPHY

Montessori described the adolescent period as a time of rebirth and states that the child is reconstructing his social self - "the chief symptom of adolescence is a state of expectation, a tendency toward creative work and a need for the strengthening of self-confidence. Social life for the adolescent is total life which corresponds to functioning in a society by being competent and independent. It is extremely important to the adolescent to feel useful and to be accepted in the community. She also believed that the adolescent should not be confined to schedules since formal type learning was at a low ebb during this period of development. These children would learn the majority of what was necessary through direct participation in opportunities for learning. Adolescents should develop a sense of justice and a sense of personal dignity during this

Appendix H (cont'd)

period as well. Failure to develop these concepts leads to anxiety, depression, and feelings of inferiority. This leads to an unmotivated and an unproductive adult; hence a loss to society.

While Montessori did not complete her work on the Erdkinder, she left guidelines as to the establishment of schools for adolescents. She believed, as in all stages of development, that the needs of the child should be followed and adjustments made to the environment to suit those needs. The four practical areas she discussed are: 1) practical life skills, which include care of the self, work, arts and crafts, drama and sports; 2) more advanced sensorial discovery of the world and nature; 3) language and culture throughout the history of civilization; and 4) mathematical and scientific development from the ancient civilizations to the modern civilizations. The entire program should develop around the emotional and intellectual development of the adolescent. As regards behavior, Montessori believed that adolescents do not feel successful simply by completing a task, but because the task is important to the community. To quote her: "But he who accomplishes a truly human work, he who does something really great and victorious, is never spurred to his task by those trifling attractions called by the name of "prizes", nor by the fear of those petty ills which we call "punishments". Using her three basic theories: academic relevance, opportunity for real experiences in society, and advancement toward economic independence should enhance our abilities to be successful with this SEM population. We must be cognizant of the fact that our students have not developed the early skills necessary to be prepared for the independence of such a program, but I would like all of us to hold onto this philosophy as we go about our daily teaching.

Appendix H (Cont'd)

Montessori - Planes of Development

0-6	PERIOD OF CONSTRUCTION - the child absorbs his environment indiscriminately - centering around two environments, home and school
6-12	PERIOD OF CONSOLIDATION - the child wants to explore society, its morals and values - child has reasoning mind and is constantly conquering abstract relationships
12-18	PERIOD OF REBIRTH - the child is constructing his social self. The chief symptoms of adolescence is a state of expectation, a tendency toward creative work, and a need for the strengthening of self-confidence.
18-24	YOUTH TAKES HIS PLACE IN SOCIETY

Montessori: Curriculum Objectives For Adolescents

1. **ACADEMIC RELEVANCE:** an integrated curriculum - movement away from traditional subject by subject division - child gains first hand experience of the practical application of learning skills. Examples: mathematical and organizational skills required in financial management or budget development; language skills required in completing job application, reading directions, etc.

2. **OPPORTUNITY FOR REAL EXPERIENCES IN SOCIETY:** locates learning both within and beyond the classroom. Examples: community living skills learned within smaller setting can be transferred to larger societal setting, participation in community activities translate to real life experiences.

ADVANCEMENT TOWARD ECONOMIC INDEPENDENCE: opportunity to learn trades or preparation toward advanced learning; application of skills learned toward the development of products that can be sold to the general public. Examples: students can learn carpentry skills and produce a salable product; students can develop skills in child care and learn responsibility.

Appendix I

Mission Statement

MISSION STATEMENT

Our mission statement reflects an intent to create an alternative environment that will foster individual growth through the use of an integrated program, focusing on the social, emotional, physical and cognitive development of the adolescent. An Ecological Model will be utilized, incorporating educational, family, community, clinical, and medical resources. The operational foundation of this program is adherence by staff and students to three basic concepts: Respect, Responsibility, and Resolution.

GOALS

The staff of this program believe that adolescence is a period of social construction in which the child attempts to express his individuality while attaining social acceptance. The goal of the program is to provide an opportunity for students to develop the social, academic, and vocational skills necessary to be successful in either a school or work setting. A small off-campus environment will be created to foster group cohesion and a sense of community. The program of studies will include an integrated curriculum which incorporates academic relevance, opportunity for real experiences in society, and advancement toward economic independence.

PROGRAM OVERVIEW

The Alternative High School is a program developed for Behaviorally Disordered Special Education students, in grades 9-12. The program is designed to meet the needs of students who are failing classes, have a high absentee rate, difficulty following established school rules, or have demonstrated an inability to learn and adjust in a comprehensive high school setting. This population also includes students who are physically aggressive, significantly disruptive, exhibit motivational problems, and demonstrate prolonged failure. The frequency and intensity of these behaviors identify each student "at risk" for prolonged school failure and as potential drop-outs. The facility will be separate from the high school and have an off-site location.

PROGRAM FEATURES

A. Staff: The staff will consist of 1 Administrator/School Psychologist; 2 Special Education Teachers; 1 Technology Education Teacher; 1 Teacher Aide; 1 part-time Clinical Social Worker; and 1 part-time Vocational Coordinator. There will be a Student-Staff ratio of three to one based on a cap of 15 students.

B. Classroom: Classes will provide opportunities for experiential learning, as well as traditional academic course work. Instructional strategies will include small groupings, individual tutoring, and group-oriented projects. Emphasis will be placed on

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individualized learning styles, creativity, and exposure to challenging and diverse activities.

C. Behavior Management: Teachers will handle discipline problems within the classroom whenever possible, using the Behavior Modification Program designed for the Alternative School. An integral part of the Behavior Modification Program will be instructing students in the implementation of anger management and conflict resolution skills. A time-out room will be available for students who need to be temporarily separated from the group. In addition, the Administrator/School Psychologist will be available to handle serious discipline problems and crisis situations.

D. Clinical: The therapeutic component of the program will include a collaborative, integrated approach to helping students in the classroom, community, and family. Evaluations and assessments will be conducted by the Administrator/School Psychologist. Weekly group and individual counseling will be provided by the Clinical Social Worker. Behavioral data will be collected, documented, and reviewed on a daily basis by the entire staff. This data will be shared with the students during morning and afternoon group meetings.

E. Family: Emphasis will be placed on family involvement. Families will be encouraged to play an active and supportive role. Weekly phone contact will be made to each family, and monthly family meetings with school staff will be offered.

F. Medical: The staff will maintain close contact with any medical professionals serving a student. Health needs for any student will be handled on an individual basis. In addition, a collaborative arrangement will be made with a psychiatrist and/or other health professionals to meet the needs of all students.

G. Community: In order to provide a comprehensive program for all students, the staff will work closely with community service agencies, such as DCF, Superior Court, Juvenile Court, and Adult Court. Staff personnel will arrange recreational programs through community contacts, such as the YMCA, etc. Vocational opportunities will be managed by the Vocational Coordinator who will work closely with the Alternative School staff to provide work skills commensurate with curriculum exposure. Vocational courses offered will be Metal Working I, Wood Working I, Drafting I, Electronics I, and Graphic Arts I. In addition, Home Economics will be offered. These skills will be transferred to apprenticeship type opportunities within the school community or in the larger community. Such apprenticeship programs will be coordinated with guidance and become part of the student's transcript.

H. Transitional Services: The Alternative staff will work closely with the local high school staff and administration to insure successful re-entry into the special education traditional high school setting for those students ready and willing to return. Transition will be from the Alternative setting to the Special Education Socially Emotionally

Appendix I (Cont'd)

Maladjusted setting within the local high school. This setting is staffed by a special education teacher and is a resource classroom which provides supervision of the student's classroom adjustment in the mainstream classes. Constant communication is held between the resource staff and any mainstream teachers that a student may have, in a effort to assist the student to meet academic and social goals in a traditional setting. Determination of a student's readiness to transfer back will be based on the results of the behavioral and academic data collected while the student is in an alternative setting.

I. Safety and Security: Our location places us under the jurisdiction of the Norwich Police Department, as well as the Connecticut State Police. We will utilize these agencies for security purposes.

J. Transportation: Special Education transportation will be provided for all students.

ADMISSION CRITERIA

The data collection and the referral process should provide the following information prior to consideration for admission:

1. Specific reasons for referral to the Alternative School including pertinent and measurable data, i.e., number of suspensions, reasons for suspensions, and number of absences/tardies.
2. Specific intervention steps previously implemented and the degree to which these measures have succeeded or failed, i.e., parental involvement, resource room intervention, counseling, and the results of these attempts to improve the situation.
3. Specific academic and/or social expectations to be addressed while the student attends the alternative education program (See Section H: Transitional Services).
4. Specific sets of academic performance and social expectations that need to be met in order for the student to return to the local high school.

Special Education students who are accepted into the program must meet one or more of the criteria listed below. They will be recommended for placement through the Planning and Placement Team (PPT) process.

1. Recent patterns of educational failure which are not being remediated by modifications in programming in accordance with PPT interventions.
2. Students who have experienced significant disciplinary problems which have a direct negative impact on the daily operations of the school. These problems have resulted in

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an extensive number of out-of-school suspensions, in-school suspensions, or other options utilized to address disciplinary problems.

3. Demonstration of poor motivation, lack of personal commitment, or disrespect for formal academic programs and their processes.
4. Students who are enrolling at the local high school who have few credits and who the PPT team may feel are inappropriate due to their educational history. This may include drop-outs and/or students who are chronologically advanced relative to their grade level peers.
5. Students who are unable to comply with the demands of a full day of school. The reasons may include:
 - a. vocational, i.e., the student has a part-time or full-time job;
 - b. family responsibilities, i.e., teen parents, care for an elderly or sick relative;
 - c. emotional, i.e., the stress of a full day program clearly affects the student's social and emotional well being;
 - d. transition, i.e., students who enter the system from out-of-district placements or hospital programs.
6. Students who have attendance problems which have resulted in numerous days of unexcused absences, tardies, or class cuts.

Parental involvement is extremely important to the success of this endeavor. Parents are requested to sign an agreement stating that they approve of the placement of their son/daughter into the alternative setting.

EXIT CRITERIA

For those students desiring a return to the local high school, a PPT would be convened to review the individual's IEP goals. Academic performance, clinical recommendations, and a review of documented behavioral data will be reviewed by staff of both the local high school and the Alternative School, and decisions will be made through the use of team consensus. While one of the program goals is to move students back to a more traditional setting, it is understood that not all program participants may exhibit behaviors needed for success in the traditional setting, nor may they wish to return to such a setting. Under these conditions, participation in the Alternative Program may be long-term. The program is designed to provide a safe, positive, and successful school experience that is dependent on individual responsibility coupled with group cohesiveness. Therefore, it is recommended that a student make a minimal one year commitment to the program.

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Breaches of conduct on school property, school transportation, or at any school-sponsored activity may lead to consideration of suspension, expulsion, or change of program. Such breaches of conduct may include, but are not limited to, violence, substance abuse, and possession of weapons. It is anticipated that a school tribunal will be established and that skills of peer mediation will be taught to the students to deal with issues that can be handled within the school community.

Appendix J

Behavior Management Policy

CATEGORY I

- a. verbal abuse - person directed
- b. threatening behavior
- c. disruptive behavior
- d. indecent clothing
- e. sexual harassment or display of sexually explicit materials

Interventions:

- Step 1. Staff member will advise student of inappropriate behavior.
- Step 2. Student will be given one warning.
- Step 3. If behavior persists, student will be asked to take a time-out in another room.
 * NOTE: Staff member will determine whether it is safe for student to be alone in time-out area. If staff member determines student should not be alone, a designated staff member will accompany student in the time-out area.
 * If student refuses to take time-out, or to cooperate during time-out, proceed to Step 7.
- Step 4. When student feels ready to return to group activity, student will propose resolution of conflict to designated time-out staff member.
- Step 5. If designated staff member agrees to proposal, student will attempt to resolve conflict with persons involved in the original conflict.
- Step 6. Upon resolution, student may return to group activity.
- Step 7. If student refuses to take time-out or to cooperate during time-out, student will be referred to the Administrator.
- Step 8. Administrator will attempt to assist student in resolution of conflict and if successful, steps 4, 5, & 6 will be followed.
- Step 9. If Administrator is unsuccessful, parent/guardian will be called to remove student from school.
- Step 10. If parent/guardian cannot be reached or are unwilling to remove student, the police will be called to remove the student.
- Step 11. In order for student to return to school, the parent must make arrangements with the Administrator or designated staff person.
- Step 12. Upon returning, student must sign a statement indicating awareness of the problem and a willingness to follow the rules of the school.

CATEGORY II

- a. possession of weapons
- b. possession of alcohol or drugs
- c. violent acts to person or property
- d. leaving school property or off-campus activities

Interventions

- Step 1. Police will be notified immediately to remove student from school.
- Step 2. A written complaint will be submitted to school authorities and police.
- Step 3. Parent/guardian will be notified of police action.
- Step 4. A PPT will be required in order for a student to return to school.

* NOTE: The Superintendent of Schools reserves the right to determine necessary disciplinary action including expulsion, suspension, or transfer to another facility

Bibliography

Achenbach, T.M. (1991). Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T.M. (1991). Manual for the Teacher's Report Form and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T.M., & Edelbrock, C. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four to sixteen. Monographs of the Society for Research in Child Development, 46 (Serial No. 188).

Ainsworth, M.D.S. (1979). Infant-mother attachment. American Psychologist, 34, 932-937.

Arthur, Richard F. (1989). How to help gangs win the self-esteem battle. School Administrator, 46(5), 18-20.

Banks, D. (1987). This dropout prevention program is a bold alternative to alternative education. American School Board Journal, 174(7), 25-26, 40.

Barker, R. (1986). The farm experience: Its importance in a child's life. The N.A.M.T.A. Journal, 12, 11-12.

Bentley, R. (1965). The Montessori method-Maria Montessori. New York: Stokes.

Borduin, C.M., & Mann, B.J. (1987). On keeping out of the briar patch: A family-ecological systems approach to treating the behavior problems of creative adolescents. Psychotherapy-Patient, 4(1), 75-90.

Bowlby, J. (1969). Attachment and loss: Vol 1: Attachment. New York: Basic Books.

Bucci, J.A., & Reitzammer, A.F. (1992). Teachers make the critical difference in dropout prevention. Educational Forum, 57, 63-70.

Buroker, C.D. (1993). Parent education: Key to successful alternative education programs. Journal of School Leadership, 3(6), 635-645.

Cahn, S.M. (1970). The philosophical foundations of education. New York: Harper & Row.

Connecticut Coalition for Children (1994). Legislative agenda presented to the Connecticut legislature, January 27, 1994. Hartford, CT.

Coopmans, J.H. (1984). A preliminary study concerning the Middenschool experiment. Studies in Educational Evaluations, 10(3), 329-331.

Cremin, L.A. (1964). The transformation of the school: Progressivism in American education; 1876-1957. New York: Vintage Books.

Dewey, J. (1916). Democracy and education. New York: Macmillan.

Education of the Handicapped Act Amendments of 1986, 20 USC 1400 of Pub. L. No. 99-457.

Edwards, A. (1985). Experimental design in psychological research. New York: Harper & Row.

Eichinger, L. (1984). When one program fizzled and another flourished, I discovered what it takes to succeed with alternative education. American School Board Journal, 171(2), 34-35.

Europa, E. (1982). Alternative education: An educational support program - Union City's innovative prototype for alternative education. New Jersey Educational Association Review, 55(9), 16-17.

Fine, M. (1990). Making controversy: Who's "at risk"? Journal of Urban and Cultural Studies, 1(1), 55-68.

Friend, T. (1988, December 5). More teens are dying violently. USA Today, p. A

Gagnon, J. (1989). Super ANOVA: Accessible Linear Modeling. Berkeley, CA: Abacus Concepts.

Gang, P. (1982). Montessori secondary education. Family Life, 1(1), 8, 9, 17-19.

Gerics, J., & Westheimer, M. (1988). Dropout prevention: Trinkets and gimmicks or Deweyan Reconstruction? Teachers College Forum, 90(1), 41-60.

Gillespie, D., & Hillman, S.B. (1993). Impact of self-efficacy expectations on adolescent career choice. Paper presented at the annual meeting of the American Psychological Association, Canada: Toronto, Ontario.

Gittelman, R.F., Mannuzza, R.F., & Bonagura, N. (1985). Hyperactive boys almost grown up: I. Psychiatric status. Archives of General Psychiatry, 42, 937-947.

Gittman, B. (1991). P.A.C.E.: Program for alternative comprehensive education, Evaluation report. Nassau county Board of Cooperative Educational Services, Westbury, NY.

Glaser, M.A. (1992). After the alternative elementary program: A promise of continued student success? Urban Review, 24(1), 55-71.

Gold, M., & Mann, D.W. (1987). Expelled to a friendlier place: A study of effective alternative schools. Ann Arbor: The University of Michigan Press.

Gordon, S. (1985). When living hurts. New York: Union of Hebrew Congregations.

Gottfredson, D.C. (1987). An evaluation of an organization development approach to reducing school disorder. Evaluation Review, 11(6), 739-763.

Harkavy-Friedman, J., Asnis, G., Boe, M., & DiFiore, J. (1987). Prevalence of specific suicidal behaviors in a high school sample. American Journal of Psychiatry, 144, 1203-1206.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112(1), 64-105.

Henker, B. & Whalen, C. (1989). Hyperactivity and attention deficits. American Psychologist, 44(216-223).

Hull, Jon D. (1993, August). A boy and his gun. Time, 20-27.

Jackard, C.R. (1988). Reaching the under challenged, marginal, or at-risk student. Clearing House, 62(3), 128-130.

Johnson, H.R. (1982). Alternative schools: A salvage operation? Clearing House, 55(7), 316-318.

Kahn, D. (1980). Montessori elementary. Cleveland, Ohio: NAMTA.

Keen, J. (1989, February 2). USA schools wrestle with kid violence. USA Today, p.A1.

Kennedy, J., Mitchell, J.B., Klerman, L.V., & Murray, A. (1976). A day school approach to aggressive adolescents. Child Welfare, LV(10), 712-724.

Kirk, R.E. (1968). Experimental design: Procedures for the behavioral sciences. Belmont, CA: Wordsworth.

Leder, M. (1987). Dead serious: A book for teenagers about teenage suicide. New York: Atheneum.

Lee, V. (1990). Increasing prosocial competence of at-risk adolescents through a social skills training program. Dissertations/Theses - Practicum Papers (043). Ohio.

Lillard, P.P. (1972). Montessori: A modern approach. New York: Schocken Books.

Loeber, R., & Dishion, T.J. (1983). Early predictors of male delinquency: A review. Psychological Bulletin, 94, 68-99.

Loney, J., Kramer, J., & Milich, R. (1979). The hyperkinetic child grows up: Predictors of symptoms, delinquency, and achievement at follow-up. Paper presented to the American Association for the Advancement of Science, Houston, TX.

Maier, S.F., & Seligman, M.E.P. (1976). Learned helplessness: Theory and evidence. Journal of Experimental Psychology: General, 105, 3-46.

Maine State Department of Educational and Cultural Services (1992). Dropout and alternative education. Augusta: Office of Truancy.

Martin, R.P. (1988). Assessment of personality and behavior problems: Infancy through adolescence. New York: The Guilford Press.

Mayfield, M. (1986), December 8). Assaults top the list of classroom chaos. USA Today, p. A10.

McCall, Robert B. (1986). Fundamental statistics for behavioral sciences. San Diego: Harcourt Brace Jovanovich.

Memmot, C., & Stone, A. (1989, June 15). Firearms and youngsters: Deadly, tragic mix. USA Today, p. A3.

Mesinger, J.F. (1982). Alternative education for behavior disordered and delinquent adolescent youth: What works--maybe? Behavioral Disorders, 7(2), 91-100.

Mesinger, J.F. (1986). Alternative education for behaviorally disturbed youth: A promise yet unfulfilled. Behavioral Disorders, 11(2), 98-108.

Montessori, M. (1973). From childhood to adolescence. New York: Schocken Books.

Montessori, M. (1973). From childhood to adolescence (p. 97). New York: Schocken Books.

- Montessori, M. (1966). The secret of childhood. New York: Ballantine Books.
- Montessori, M. (1964). The Montessori method. New York: Schocken Books.
- Mosher, R.L. (1978). A democratic high school: Damm it, your feet are always in the water. Character Potential: A Record of Research, 8(4), 196-217.
- National Information Center for Children and Youth with Disabilities (1991). Disabilities which qualify children and youth for special education services under the Individuals with Disabilities Act (IDEA). Washington, D.C.
- Parker, J.G., & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low accepted children at risk? Psychological Bulletin, 102, 357-389.
- Pelham, W.E. & Bender, M.E. (1982). Peer relationships in hyperactive children: Description and treatment. In K.D. Gadow & I. Bialer (Eds.), Advances in learning and behavioral disabilities: A research annual, 1(365-436). Greenwich, CT: JAI Press.
- Pfeffer, C. (1986). The suicidal child. New York: Guilford.
- Piers, E.V. (1984) Piers-Harris Children's Self-Concept Scale Los Angeles, California: Western Psychological Services.
- Poland, S. (1993). Crisis intervention and the schools. Communiqué, 22(4), 11-12.
- Prause, D.P. (1991). Children's rights and the educational enterprise: Form versus function. School Psychology Review, 20(3), 359-368.
- Reynolds, W.M. (1987). Reynolds Adolescent Depression Scale manual. F1: Psychological Assessment Resources, Inc.
- Roosa, M.W., Beals, J., Sandler, I., & Pillow, D.R. (1990). The role of risk and protective factors in predicting symptomatology in adolescent self-identified children of alcoholic parents. American Journal of Community Psychology, 18(5), 725-741.
- Ross, C. (1985). Teaching children the facts of life and death: Suicide prevention in the schools. In M. Peck, N. Farberow, & R. Litman (Eds.), Youth suicide (pp. 147-169). New York: Springer.
- Ross, P. (1979). Trouble in school: A portrait of young adolescents. New York: Avon Books.

Rotter, J.B. (1954). Social Learning and Clinical Psychology. New York: Johnson Reprint Company.

Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 81 (1, Whole No. 609).

Rotter, J.B. (1975). Some problems and misconceptions related to the construct of internal versus external reinforcement. Journal of Consulting and Clinical Psychology, 43, 56-67.

Rubin, K. II., & Clark, M.I. (1983). Preschool teachers' ratings of behavioral problems: observational, sociometric, and social-cognitive correlates. Journal of Abnormal Child Psychology, 11, 273-285.

Sarason, S.B. (1983). Schooling in America: Scapegoat and salvation. New York: The Free Press.

Sattler, J.M. (1988). Assessment of children. San Diego: Jerome M. Sattler.

Schubert, W.H. (1986). Curriculum: Perspective, paradigm, and possibility. New York: Macmillan Publishing Company.

Shaw, Carl N. (1975). A comparative study of students in alternative and traditional high schools. Education, 96(1), 28-35.

Silvestri, K.L. (1986). The re-emergence of alternative education: Some lessons. Equity and Choice, 3(1), 25-27.

Smith-Davis, J. (1985). A sampler of education programs for adolescents. Pointer, 29(2), 47-50.

Smith, K., & Crawford, S. (1986). Suicidal behavior among "normal" high school students. Suicide and Life-Threatening Behavior, 16, 313-325.

Sroufe, L.A. (1979). Emotional development in infancy. In J. Osofsky (Ed.), Handbook of infant development. New York: Wiley.

Standing, E.M. (1959). Maria Montessori: Her life and works. Fresno, CA: Academy Guild Press.

Standing, E.M. (1966). The Montessori revolution in education. New York: Schocken Books.

Thomas, A., & Grimes, J. (1990). Best practices in school psychology-II. Washington, D.C.: The National Association of School Psychology.

Thrush, U. (1978). Maria Montessori's Erdkinder experiment. The N.A.M.T.A. Quarterly, 3, 1-10.

Thrush, U. (1978). Maria Montessori's Erdkinder experiment. The N.A.M.T.A. Quarterly, 3(1), 44.

Tyler, R.W. (1949). Basic principles of curriculum and instruction. Chicago: The University of Chicago Press.

Vidal, J. (1986, October). Establishing a suicidal prevention program. National Association of Secondary School Principals Bulletin, 68-72.

Webb, T.E., & Van Devere, C.A. (1991). SPPI Manual. Akron, Ohio: Fourier.

Wechsler, D. (1991). Wechsler Intelligence Scale for Children - Third Edition (WISC-III) Manual. San Antonio, TX: The Psychological Corporation.

Wikramaratne, L. (1980). Thoughts on the Erdkinder project. The N.A.M.T.A. Quarterly, 5, 21-23.

Winborne, D.G. (1991). Will school choice meet students' needs? Principals' views. Education and Urban Society, 23, (2), 208-218.

Witt, J.C., Heffer, R.W., & Pfeiffer, J. (1990). Structured rating scales: A review of self-report and informant rating processes, procedures, and issues. In C.R. Reynolds and R. W. Kamphaus (Eds.), Handbook of psychological and educational assessment of children: Personality, Behavior and Context (pp. 388-389). New York: The Guilford Press.

Woodcock, R.W., & Johnson, M.B. (1989). Woodcock-Johnson Test of Achievements. Texas: DLM Teaching Resources.