AN EVALUATIVE STUDY OF THE ENID ACADEMICALLY AND CREATIVELY TALENTED (ACTion) PROGRAM

By

ARTHUR WARREN PLINER

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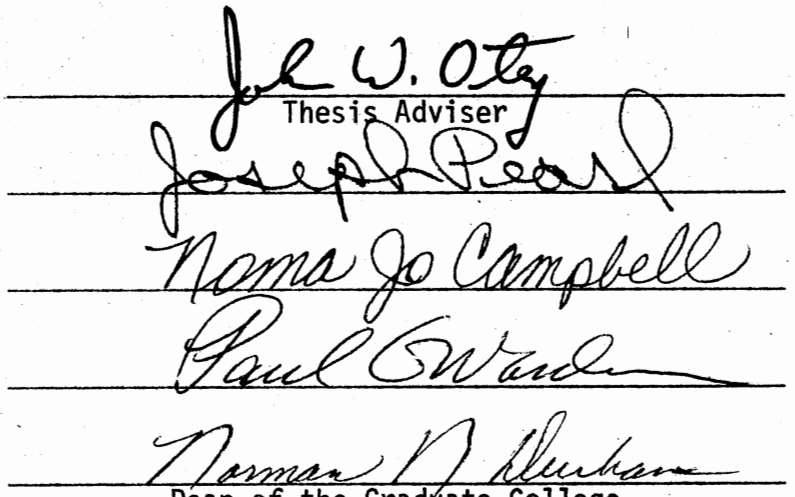

Thesis Adviser

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

During the past few years the responsibility of a public school system to provide for the education of gifted children has been discussed and alternatives for meeting this responsibility examined (Boyd, 1976; Roth and Sussman, 1974). An obvious response to this discussion and examination has been the creation of more and more programs for the gifted/talented. Many different types of programs have been initiated and are currently operating within our public schools. However, few of these programs have been evaluated (Torrance, 1978).

Gifted/talented education, yet in infancy, has still a long way to go. It has been estimated that from 3 to 5 per cent of the United States student population is gifted, but according to the U.S. Office of Gifted and Talented, only 35 reporting states were serving the minimal 3 per cent - 23 states served 1 per cent or less (Mitchell and Erickson, 1978).

Within the Enid Public School System a program has been developed as an outgrowth of community and administrative awareness of the need for educational programs in the area of gifted/talented education. The goals which have been written for the Enid ACTion (Academically and Creatively Talented) Program (see Appendix A) incorporate ideas which are seen most frequently in current literature (California State Department of Education, 1975; Feldhusen, 1970; Sanders, 1961; Taylor, 1974; Torrance, 1974; Treffinger, 1975). The program, designed for enrichment, gives children

a broader base of knowledge, teaches the process of learning and encourages creative thought. It is through this evaluative study that the effectiveness of selected aspects and goals of the Enid ACTion (Academically and Creatively Talented) Program will be measured.

ACTion Program

Within the ACTion Program, daily curriculum activities revolve around some basic sets of materials as well as several different theoretical constructs. The ACTion teacher incorporated the ideas of Renzulli (1976), Bloom (1956), Torrance (1972), Taylor (1974), Feldhusen (1970), and Treffinger (1975) into the classroom through the use of teacher-made materials and published materials.

The ACTion Program, which includes thirty-two 4th, 5th, and 6th grade students, is an enrichment experience designed to broaden children's experiences. It further provides students' training in skills for the use of a wide variety of resources to direct their own learning. Much of what is done in the ACTion Program is directed toward teaching children to become more independent learners. The program is designed to meet the individual needs of students through providing increasingly difficult levels of material, allowing independent study on topics of the child's interest, and by providing training in the organization and synthesis of tasks.

One example of this ingenious combination of models by the ACTion teacher is seen in a unit completed by the ACTion students dealing with the musical composition of Saint Sains' Carnival of the Animals. After listening critically to two different recordings of the symphony, the students: (1) researched the composer, (2) completed research on an

animal of their choice, (3) role-played animal parts, (4) gave oral reports on the composer and an animal, (5) learned scale drawing in order to complete a large mural based on the symphony, (6) wrote poetry about animals, (7) designed animal costumes, (8) wrote dialogue for a stage production, (9) attended a concert where the dialogue written by the ACTion class was performed by the Phillips University Symphony. A daily log of activities is included in Appendix B, showing the continuity of the ACTion Program as well as the topics and materials used as part of this special program.

An attempt was made on the part of the ACTion teacher to achieve a balance of activities on a daily basis. The ACTion teacher/coordinator believed that there were three basic concepts which were extremely important in facilitating the growth of the students: (1) continuity, (2) relevancy, and (3) advancing levels of difficulty. These three concepts, when applied to daily curriculum, provided for individual differences, maintained high levels of motivation, and allowed for general ease of assimilation and accommodation of information and knowledge.

Besides those activities prescribed by the forementioned authors and theorists, the ACTion teacher spent a great deal of time on experiences she described as humanizing, and which included exercises in values clarification, communication, and aesthetic training through music, art, and literature.

Each student in the ACTion Program kept a daily diary of activities (see Appendix C). The teacher asked that each student evaluate both the activities in and out of the classroom and his/her performance, and that he/she also indicate his/her preferences and criticisms.

Listed on the following pages are in-depth explanations of the theoretical constructs used as a guide by the ACTion teacher in the development of this special program.

Self-Directed Learning

As stated in the goals and objectives of the Enid Public School ACTion Program, the development of self-directed learning in students is very important. Donald O. Treffinger (1975) states that this is a goal that is especially desirable for the gifted and talented. Treffinger and others felt that this was an important goal because most research on the personal characteristics of gifted individuals suggest they are critical, independent in thought and judgment, self-starting, and persevering (Feldhusen, Treffinger and Elias, 1969; Torrance, 1965).

The facilitation of self-directed learning on the part of the student by the teacher involves four basic factors: (1) identification of goals and objectives, (2) knowing the entering behavior of the learner, (3) identification and implementation of appropriate instructional procedures, and (4) assessment of performance (Figure 1).

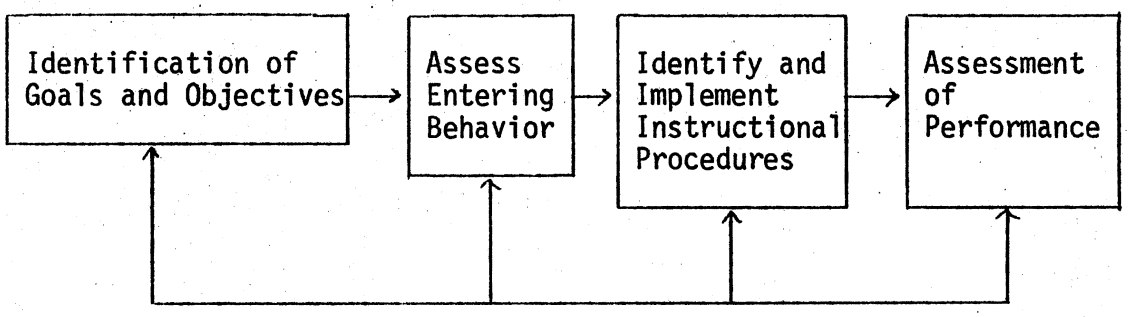

Figure 1. A Basic Model for Instruction (Treffinger, 1975)

Within the four steps of instruction, different levels of independence or self-direction are achieved by the learner. During the identification stage, the teacher moves the learner through teacher-directed activities and attempts to recognize individual differences within her students. This involves giving the students choices or options within the structured curriculum. Allowing the students to create their choices or options is the next step toward independence. This is followed by the transfer of authority from teacher to learner. At this third step, the curriculum becomes entirely personalized for each learner.

When assessing entering behavior, the teacher-centered task involves diagnosis of a specific set of objectives for the student based on his background, knowledge, abilities, motives and personal characteristics. The second step involves a conference between teacher and student designed to mutually consider goals and objectives for the student. In the third stage, diagnosis and prescription are under the control of the learner.

When planning and implementing instruction, the teacher first attempts to increase the kind and number of alternatives that the learners follow. The teacher then provides a wide variety of resources and alternatives, contracting with students to plan the instructional episode. Finally, the learner defines the projects and activities in accord with his background and interests to accomplish self-initiated goals and objectives. The teacher becomes the facilitator of learning as opposed to the controller.

The final assessment stage involves the teacher clarifying to the learner the nature of the objectives and the kinds of evidence which

will be accepted. The student then begins to learn about the evaluation process. He actively takes part in conferences with his teacher and with other students learning how to apply criteria for evaluation of his or her own work.

Multiple Talent Teaching

Calvin Taylor (1974) in his multiple talent teaching model points out the need to identify and provide for differing talents in children. The Enid Public Schools desired to identify and plan for the academically and creatively talented student as well as children who had leadership potential and good communication skills. In this multiple talent teaching approach students are conceived of as thinkers, not merely learners.

Taylor (1974, p. 71) feels that those students who are just academically talented are "learners who adjust, as needed, to get high grades in school activities that call for receiving, storing, retrieving, and dumping information." Therefore children who were chosen for the ACTion Program were chosen on the basis of their creative talent, not just on the basis of achievement and academic performance.

The teacher, in the multiple talent teaching approach, is a talent developer. The teacher learns to structure the classroom setting to be able to facilitate a given talent within students, but uses a different type of classroom structure to elicit a second talent, and a third, etc. By producing a favorable climate, thinking and eventually creative thinking will be elicited and enhanced in classrooms. Taylor feels that it is becoming feasible to start teaching of non-intellectual characteristics of creativity such as personality, motivational, and other affective inner resources underlying high-level creative processes.

Taylor (1974) believes that if a young person learns repeatedly how to turn on his creative processes, then he will likely use these processes throughout his entire lifetime as a main resource in his living and functioning effectively.

> At the extreme of Picasso, re-experiencing his creative processes may become his way of life, which is focused almost entirely upon continuously creating. Contrarily, 'if his creative potentials remain unearthed and dormant so that non-creative patterns become established, his creative potential will probably remain hidden and lost to him and to society as he continues to use only non-creative processes throughout the rest of his life' (Taylor, 1973, p. 1).

Taylor (1974) has designed talent totem poles (Figure 2) to illustrate the multiple talent approach. Beverly Lloyd, a teacher at Belle Vista School in Utah's Jordan District made cartoon drawings representing

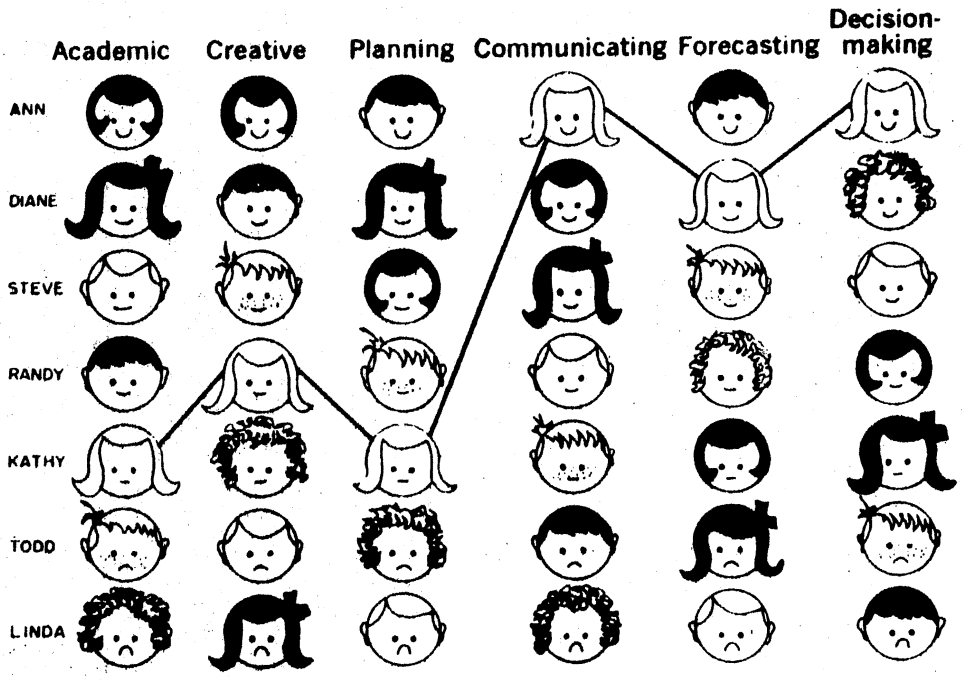

Figure 2. Taylor's "Talent Totem Poles" (Taylor, 1974)

different pupils in her class and ranked each child on six talents being developed. She then placed her 28 second graders on each of six totem poles. Figure 2 shows how she rates the performance of seven pupils on each talent. Taylor points out that each pupil appears to have a unique pattern of strengths and weaknesses in varied talents.

In a 1972 evaluation of the Belle Vista program, the Belle Vista pupils were compared to two control groups of children from two different schools on an instrument called the Student Activities Questionnaire which is a multiple choice classroom-climate instrument developed for fifth and sixth graders. It yields eight measures: individualized instruction, enjoyment of school, classroom participation, career development, self-concept, independent development (self-management), democratic classroom control, and multiple talent experiences. The Belle Vista pupils outscored the control group in all 58 comparisons, 42 of which were significant.

The multiple talent teaching model was also used in a center for mentally retarded students with emotionally disturbed students and with vocational education students at the college level.

Enrichment Triad Model

The Enrichment Triad Model developed by Joseph Renzulli (1976) points out the three components of the gifted child, including above average ability, creativity, and task commitment. Renzulli approaches the teaching of these gifted students in ways similar to Treffinger (1975). He believes that children have to undergo: (1) general exploratory activities, where they systematically experience new studies not engaged in as part of the usual curriculum, (2) group training activities,

in which there is a process approach involving creative problem solving and critical and creative thinking, (3) investigations of real problems, which involve identifying, investigating and solving problems of interest to the students.

Inherent in the Enrichment Triad Model are the learner's ability, interests, and learning styles. Keeping the learner in focus, the teacher can select the curriculum in such a way that the content, process, and method (of problem attack) fit the student. The teacher's behaviors are three-fold, including: (1) the identification of solvable problems, (2) finding a reasonable outlet and audience for a product, and (3) providing methodological assistance only, in the form of materials and sources, and providing managerial assistance such as transportation, phoning, and arranging.

Renzulli feels that the only justification for a gifted program is that of the unique characteristics which are common to all gifted and therefore, necessary as part of a program. As illustrated in Figure 3,

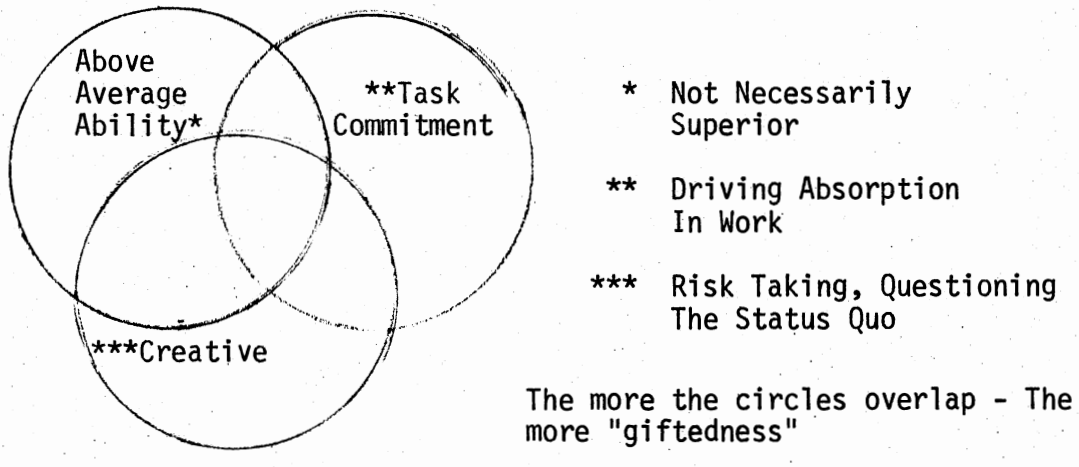

Figure 3. Renzulli's Characteristics of Giftedness

the child has three overlapping abilities including: (1) above average ability (not necessarily superior), (2) task commitment, and (3) creativity, including risk taking, and questioning the status quo.

The Enrichment Triad Model involves having children: (1) systematically experience and engage in new studies which are not in the usual curriculum, (2) approach new activities in a process oriented manner, involving creative thinking, critical thinking and problem solving, (3) identify, investigate and solve problems of interest to them (unique to the needs of the gifted student (see Figure 4).

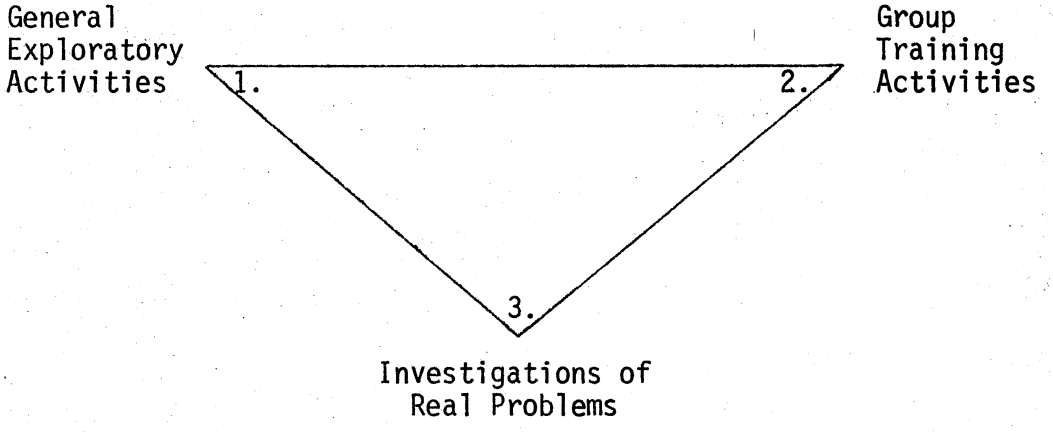

Figure 4. "Enrichment Triad"

Purdue Creative Thinking Program

The research and development of this program was spearheaded by Feldhusen and Treffinger (1970) in an effort to develop a new instructional program for developing creative thinking abilities and language achievement in elementary school pupils.

In 1965, a team of researchers and specialists in several areas, under the direction of the senior author, developed a series of twenty-eight lessons designed to foster the divergent thinking abilities of verbal and figural fluency, flexibility, originality and elaboration. Each of the lessons consists of three parts. The first part is a three-to-four-minute presentation which attempts to teach a principle or idea for improving creative thinking. The second is a ten-minute story about a famous historical figure. The third part consists of a series of three or four printed exercises which encourage creative thought.

The first section of the audio tape, the presentation, gives specific suggestions about improving one's creative thinking abilities; and generally emphasizes the worth of effective thinking. For example, one lesson's presentation deals with the use of creative ideas outside the classroom, suggesting that children who think of new and unusual ideas for games have more fun. Other presentations emphasize problem solving, tolerance for other people's ideas, the importance of humor, and putting ideas together in unusual ways to create original products.

The content of the stories is historical, and they are presently divided into four sections, each containing seven stories. The first group deals with explorers such as Columbus, Cortez, and Lewis and Clark. The second deals with important men and events in the history of the United States, such as Lincoln, Samuel F. B. Morse, and the first transatlantic cable. The third group is concerned with statesmen such as George Washington and Simon Bolivar. The final group includes stories about recent historical events, such as the development of a polio vaccine and space exploration. All the stories were produced by

professional radio personnel and were told dramatically with appropriate sound effects and music in order to stimulate the children's imaginations.

The third part of each lesson, the printed exercises, is based on the lesson's story. For example, children are frequently asked what they might have done if they had been the people in the story. The need for many solutions, instead of a single correct answer, is stressed.

Evaluation of the Purdue Creative Thinking Program began in 1965 with the first of a three-phased evaluation process. The first phase dealt with the question, Does it work? Results from two separate studies indicated that the PCTP led to significant increases in the creative thinking ability of the students involved (Feldhusen, Bahlke, Treffinger, 1969; Robinson, 1969).

The second phase of research attempted to answer the question, Are the several components of the PCTP differentially effective in facilitating creative thinking? Two studies completed in 1970 both concluded that the components of the PCTP differentially influenced the development of creative thinking abilities (Shively, Feldhusen, Treffinger, Asher, 1971).

Phase III of the evaluations, which is currently a pilot study, is looking at the external factors such as how teacher creativity and period of instruction moderate the effects of the PCTP. They also are looking at the outcomes of training with the PCTP on a wide variety of measures (Shively, 1971).

Problem

This paper is classified as an evaluative study because a product oriented evaluation has been conducted to determine if the goals of the ACTion Program are being met. In addition, research questions involving possible auxiliary areas of learning were investigated.

The first goal of the ACTion Program evaluated in this study was that of extending creative talents on the part of the ACTion learners. Through a multifaceted curriculum the ACTion Program attempts to help gifted students by teaching them to extend their creative talents. This is facilitated through the development of students' divergent thought processes and aesthetic values. The ACTion Program relies heavily upon what has been written by theorists in the field of gifted/talented, as well as what has been published in the form of curriculum materials related to creativity training. The Purdue Creative Thinking Program and creative thinking activities as developed by Torrance are examples. Although some research has been completed on creativity training programs, more information is needed (Feldhusen, Bahlke, Treffinger and Robinson, 1969, 1970, 1971).

A second goal of the ACTion Program is that of increasing self-directed learning on the part of gifted students. It is felt that if students gain more awareness and acceptance of their own abilities, they will begin to take more responsibility for their own learning. There are published materials developed to help teach cognitive skills, such as Research Lab, and these were used along with teacher centered activities designed to promote awareness of a student's own ability and acceptance of the abilities of others. It was desirable to determine the effects of this special program.

It was hypothesized in this study that the ACTion Program has a positive effect on academic achievement. Although the teacher was not teaching academic skills as such, she provided an atmosphere where the basic skills could be used by the ACTion students on an individualized basis. A third goal of this study was to determine if the students in the ACTion Program gain in academic areas purely through their exposure to the special gifted program. For example, a student may have participated in class discussion about, or researched, a great scientist. In so doing, he may have enhanced his reading, writing, and spelling skills, as well as learned new math concepts. This auxiliary learning which could be associated with the gifted program, was hypothesized to show up in concrete form such as achievement tests.

Finally, it was felt that children who participate in the ACTion Program will have better feelings about school than those students who do not participate in a special program for the academically and creatively talented student. It is beneficial to know just what effects ability grouping, special teachers, and unusual curriculum have on gifted children. It is possible that the removal of children from their regular classroom or school adversely affects their attitudes toward their peers, classmates, regular classroom teacher, and so on. On the other hand, a special program might encourage better attitudes toward school.

Purpose

The purpose of this evaluation study is to determine the effectiveness of the Enid ACTion Program. With the use of psychometric instruments, several of the measureable goals of the program are being

evaluated. Specifically, this evaluation seeks to determine if experimental groups of gifted children will score significantly better than control groups of nearly equivalent children in the areas of creativity, as measured by the Torrance Tests of Creative Thinking (Torrance, 1974); academic achievement, as measured by the math and spelling portions of the Wide Range Achievement Test (Jastak & Jastak, 1976) and Gates-MacGinitie Reading Test (Gates & MacGinitie, 1965); and self-directed learning, as measured by the Intellectual Achievement Responsibility Scale (Crandall, Katkorsky & Crandall, 1962). It is also the purpose of this evaluation to determine if the ACTion Program has an effect on the participants' feelings about school in general. The School Sentiment Index (1972) was used to measure attitudes about school.

Research Questions

Each group of 4th, 5th, and 6th grade children who take part in the Enid ACTion Program will score significantly better than the control groups of children who do not participate in the ACTion Program on these subtests:

The Fluency subtest of the Torrance Tests of Creative Thinking (TTCT), Verbal Part

The Flexibility subtest of the TTCT, Verbal Part

The Originality subtest of the TTCT, Verbal Part

The Fluency subtest of the TTCT, Figural Part

The Flexibility subtest of the TTCT, Figural Part

The Originality subtest of the TTCT, Figural Part

The Elaboration subtest of the TTCT, Figural Part

The Spelling subtest of the Wide Range Achievement Test

The Math subtest of the Wide Range Achievement Test

The Number Attempted portion of the Speed and Accuracy subtest of the Gates-MacGinitie Reading Test

The Number Right portion of the Speed and Accuracy subtest of the Gates-MacGinitie Reading Test

The Vocabulary subtest of the Gates-MacGinitie Reading Test

The Comprehension subtest of the Gates-MacGinitie Reading Test

Children who take part in the Enid ACTion Program will have significantly higher total I scores on the Intellectual Achievement Responsibility Scale than the control group of children who do not participate in the ACTion Program.

All students who take part in the Enid ACTion Program will have more positive "feelings about school" as measured by the School Sentiment Index, than the control group of students who do not participate in the ACTion Program.

CHAPTER II

REVIEW OF THE LITERATURE

The need for objective assessment of educational programs has become increasingly evident. "Without the testing of hypotheses, curriculum theory remains outside the field of educational research. And hypothesis testing requires evaluation" (Fashay & Beilen, 1969, p. 280).

Discussed on the next pages are some of the few evaluation studies of gifted programs conducted throughout the country. One similar to Enid's program was summarized in a final grant report of a project entitled "Whitman County Project for Academically Talented Students" (Pringle, 1971). Sixty-three gifted 3rd, 4th, and 5th grade students from 13 rural school districts in eastern Washington participated for 16 weeks in a special education enrichment program. Four teaching/resource centers were established throughout the county where 15-17 students from adjacent districts met one day per week. One special teacher conducted all classes and moved from center to center. Drama, art, creative writing, social studies, mathematics, and film making were all the principal areas of study. Program goals included the development of (1) emotional growth, (2) social growth, and (3) intellectual development. At the project's conclusion, observations regarding the strengths and weaknesses of the project were obtained from parents, students and regular classroom teachers. Findings from this evaluation indicated that a discrepancy existed between parents and teachers on

perceived positive and negative change as a result of students' participation in the program.

In an evaluation report entitled "The High Potential Program in the Minneapolis Public Schools: An Evaluation," the author described and evaluated a program for gifted elementary children in grades four through six (Bergeth, 1975). The program included twenty-one schools and approximately 353 students. Programs in math, science, social studies, modern language, and creative writing were offered. The purpose of the program was to offer a challenging enrichment experience for high ability students. Students were challenged to learn subject matter in much greater depth and breadth than their regular classroom experience and also were exposed to new ideas and concepts. A specialist in each of the subject areas provided the instruction. The High Potential Program was very successful, according to the views of high potential students, parents of students, and teachers of students. Sixty-one per cent of the students said they benefited a great deal and only four per cent said they received no benefit. Most teachers (91%) thought their students benefited and only 3% indicated the program was of little benefit. Practically all (99%) of the parents said their children benefited.

Fifty per cent of the teachers felt their students had gained in subject matter skills. Eighty per cent of the teachers who had students in the science program felt their students had gained in subject matter skills; math was second with 56%, then social studies (47%) and creative writing 35%.

Wurster and Ball (1967) report the results of a two year project to develop and implement an instructional model for 200 identified

talented and gifted students in K-8. The project objectives were considered individually in terms of the pre- and post-test scores, project produced documents, conclusions, and recommendations. The project objectives included changing students' behaviors in the areas of mathematics, reading recognition, reading comphrehension, general ability and creativity. It was concluded that the project was successful in planning and developing procedures and instruments for identifying gifted and talented students.

Presented in the third and final evaluation evaluation report of "Project Talented and Gifted: Final Evaluation Report," are results of an appraisal of over 50 student participants (8-15 years old), and the project staff and resource personnel (Khatena, 1976). The project is described as a three-month institute to provide experiences in areas such as learning to use creative thinking and problem solving strategies in language arts, science, mathematics and music.

The experimental findings of this report have provided evidence that after 27 months, no significant improvement on the part of the experimentals was evident in the area of creativity as measured by the Torrance Tests of Creative Thinking. Creative self perceptions of experimentals and controls as measured by Something About Myself does not show any significant improvement of experimentals over controls resulting from exposure to the program. No significant improvement in non-verbal and verbal intelligence measured by the Standard Progressive Matrices.

Generally, evidence from psychometric instruments measuring creative thinking, creative self perception, non-verbal and verbal intelligence and achievement indicate that the program of the project

did not bring about accelerated development of the abilities of talented and gifted groups of students. Observational evidence does support the effectiveness of the program as growth inducing in both cognitive and affective domains.

In a report to the California Legislature by the California State Department of Education, the findings of program evaluations including gifted students were discussed. Nine hundred and twenty-nine gifted children grades 1-12 were involved in 17 experimental education programs during the 1958-59 school year (1961). The experimental programs evaluated were divided into three categories: special groupings, acceleration, and enrichment in the regular class. Pupils were placed in a number of experimental programs at each grade level studied, with a single control group for each grade level. The students who participated in the study were selected on the basic criterion of a minimum of 130 I.Q. on the Stanford-Binet Scale. Pupil achievement levels and personal social adjustment were measured to determine which experimental programs were most effective. All phases of the evaluation showed conclusively that the special provisions made in the programs were beneficial. Evaluations made through various tests and through judgments of parents, teachers, and pupils proved that the participating pupils made striking gains in achievement with accompanying personal and social benefits.

Summary

Five evaluative studies of programs for the elementary gifted have been discussed. Two of the five program evaluations have employed experimental and control groups as well as psychometric instrumentation

to determine program effectiveness. The other three program evaluations gained participants' feelings about the special programs through questionnaires and inventories.

The evaluative studies of gifted programs discussed have reported varied success. One of the studies using psychometric instruments (Khatena, 1976) did not report statistical significance but did report observational success. Another study (California State Department of Education, 1961) reported striking gains in achievement and personal social adjustment. Those studies employing observational techniques in determining program effectiveness (Bergeth, 1975; Wurster & Ball, 1967) reported program success, with the exception of one study (Pringle, 1971) which reported a discrepancy between parents and teachers regarding positive and negative changes in students.

CHAPTER III

METHODOLOGY

Students who participated in the ACTion Program met two afternoons per week in a class located within a special education center within the school district. The teacher of the ACTion Program met with 16 students on Monday and Wednesday afternoons, and another 16 students on Tuesday and Thursday afternoons. Students attended from 12:30 P.M. to 3:05 P.M. on their respective days, transported to and from class by the parents of the students attending the ACTion Program. The school district was divided in half geographically, and all the students on the same side of the district attended the ACTion Program on the same two days. Students located on the other half of the district attended the ACTion Program on the other set of days. This was done in an effort to ease transportation problems and encourage car pooling.

The experimental group of students in the study, or those attending the ACTion Program, were not required to make up work missed from the regular classroom because of their attendance of the ACTion Program. They were, however, required to keep up or maintain high level classroom performance. Generally, the regular classroom teacher scheduled less academically essential material to be covered while the ACTion students were out of their class.

Students in the control group of gifted children, or those students not attending the ACTion Program, maintained a regular class schedule and had no special provisions made for their educational experiences.

Demographic Information About Subjects

The city of Enid is located in Garfield County in the northwestern portion of the state of Oklahoma. The population, which has grown consistently through the years, is now approximately fifty-five thousand residents and Enid is the fifth largest city in Oklahoma.

The seventy subjects in this study were selected from fourteen different elementary schools located throughout the Enid school district. The city of Enid has an elementary student population of approximately 4,000. Each school had one or more representatives from their 4th, 5th, or 6th grades in the experimental and control groups. Generally, the number of children selected for the experimental and control groups reflected a percentage of the school population (i.e., larger schools had more students represented than smaller schools). All but two of the participants were Caucasian.

As is often true in school districts with many small area elementary schools, each school generally reflects the socioeconomic level of the residents it serves. Within the Enid system, the larger schools were located in the higher socioeconomic neighborhoods; therefore more children in the ACTion Program were from households whose income would be higher than the community median. However, a cross section of parental occupations were represented, including professionals, blue collar workers, skilled laborers and so on. A few of the children did come from single parent homes. Out of the 70 students in this study, 39 were female and 31 were male. There were a total of twenty-six 4th graders (11 experimental and 15 control), twenty-three 5th graders (9 experimental and 14 control), and twenty-one 6th graders (12 experimental and 9 control).

Selection of Subjects

In the identification of the gifted/talented, it is stated by authorities that it is very important to obtain multiple input about students, including psychometric test scores, teacher recommendations, and parent referrals (Renzulli, 1976; Tongue & Sperling, 1976). With this in mind, the selection process for gifted children for the Enid ACTion Program became a multifaceted procedure. Included in this section are the chronological steps taken by the ACTion coordinator and the committee to identify those children who would participate in the Academically and Creatively Talented Program.

The coordinator of the ACTion Program began the selection process by going through the cumulative folders of all 4th, 5th, and 6th grade students, and identifying all children with I.Q. scores from standardized individual or group tests, which were 120 or above. She also identified any children who had achievement test scores with a composite score at or above the 95th percentile. Any children who did not have I.Q. or achievement test scores in their cumulative folders were also considered candidates for the ACTion Program. This group of children who were selected on the basis of I.Q. scores and/or achievement test scores were considered to be the first pool of possible applicants for the ACTion Program.

The ACTion coordinator then visited with every 3rd, 4th, 5th, and 6th grade teacher in the school district and provided the teachers with orientation about the ACTion Program, including the characteristics of giftedness, as well as the nature of the program. Teachers were then asked to complete an objective student nomination form (Appendix D).

The objective nomination form was divided into three sections, each section listing those qualities which are most associated with gifted students. The student's name appearing most often on the objective nomination form was considered nominated by that teacher for the ACTion Program. The teachers also had the option of nominating a student whom they felt would benefit from this special enrichment program on the subjective nomination form even if that child was not nominated anywhere else (see Appendix E).

Letters were sent to every parent of every 4th, 5th, and 6th grade student in the school district (Appendix F) asking for nominations of children for the ACTion Program. Every nomination was investigated by the ACTion coordinator to see if the nominated child met the criteria to be considered as part of the pool of prospective applicants.

From the pool of prospective applicants (those students with I.Q. scores of 120 or above or achievement composite scores at or above the 95th percentile), children with I.Q. scores of 120 or better and achievement composite scores at or above the 95th percentile, who also had at least two teacher nominations from two different teachers, became the final group of applicants for the ACTion Program.

The creativity component of the applicants was measured with the use of the Torrance Tests of Creative Thinking. Each child's test results were changed from raw scores to T-scores and ranked on the basis of total t-scores, and spread between T-scores. For example, within the verbal portion of the Torrance Tests of Creative Thinking, the students were measured on three variables including fluency, flexibility, and originality of thoughts and ideas. If student A had T-scores of 55, 60, and 65 respectively and student B had T-scores of 40, 70, and 45

on the three areas being measured, then student A would be ranked higher than student B. Student A had a higher T-score of 180 compared to student B's T-score total of 155. Student A also outranked student B in least amount of spread between T-scores with a total of 10 points of spread compared to a 55 point spread for student B. This information was included in an information packet assembled for each of the applicants.

In the next step of the selection process, the ACTion coordinator went back to each of the final applicants' teachers and asked the teacher to fill out a more complete form, asking more in-depth questions about the applicant (Appendix G).

The objective and subjective information from teachers, and all testing information (including group and individual standardized tests, grades, I.Q. scores, Torrance Test scores, and so on), was compiled for each applicant and was submitted to a selection committee. This committee was made up of two parents, a principal, a counselor, and a psychometrist. All identifying information regarding any of the applicants was deleted. No information was given to the committee that would in any way allow the committee to know who the prospective applicant was. Code numbers were assigned to all applicants.

The selection committee chose thirty-two children from a pool of seventy finalists. These thirty-two were selected on the basis of testing information, grades, and teacher recommendations and checklists. Each applicant was looked at individually by each of the five committee members and was discussed as to relative strengths and weaknesses when compared to the other prospective applicants. Subjective decisions were made by the committee members as to the qualifications of each

finalist for the program. Because all seventy finalists were so strong, the selection committee had a very difficult time differentiating between subjects. It was felt that all the applicants would qualify for and benefit from an enrichment program; however, the committee was assigned the difficult task of choosing just thirty-two children. Some subtle diversities existed within the teacher recommendations; a few extreme I.Q. scores and creativity scores existed. Since the ACTion Program was developed to serve, as its name implies, the academically and creatively talented student, it was decided by the committee to add weight to the Torrance Tests of Creative Thinking scores in an effort to find the most creative of the group of academically gifted students.

Instrumentation

Gates-MacGinitie Reading Test

Survey D is intended for use in grades 4 through 6 and includes three parts: speed and accuracy, vocabulary, and comprehension.

The Speed and Accuracy Test measures how rapidly students can read with understanding. The Vocabulary Test samples a student's ability to read complete prose passages with understanding. Each subtest on the Gates-MacGinitie Reading Test yields a raw score, percentile, and a standard score. The standard scores were used in the statistical analysis in this study.

The 1964-65 norms for the Gates-MacGinitie Reading Tests were developed by administering the tests to a nationwide sample of approximately 40,000 students in 37 communities.

Concurrent validity coefficients for the correlation of Survey D at grade five with four other standardized reading tests were .78 for vocabulary and .80 for comprehension (Davis, 1968).

The reliability data is based on a separate reliability testing of four to six communities completed in 1964. Reliability coefficients for Survey D are listed in Table I.

TABLE I

RELIABILITY COEFFICIENTS (1964-65 RELIABILITY TESTING)

Grade		Alternate Form Reliability	Split-Half Reliability
4	Vocab.	.85	.88
	Comp.	.83	.94
	Sp. & Acc. No. Att.	.67	---
	Sp. & Acc. No. Rt.	.80	---
5	Vocab.	.87	.92
	Comp.	.89	.96
	Sp. & Acc. No. Att.	.75	---
	Sp. & Acc. No. Rt.	.76	---
6	Vocab.	.85	.89
	Comp.	.87	.95
	Sp. & Acc. No. Att.	.72	---
	Sp. & Acc. No. Rt.	.78	---

Gates & MacGinitie, 1972

Wide Range Achievement Test

This test measures a student's word recognition and pronunciation, written spelling and arithmetic computation. Only the written spelling subtest and arithmetic computation subtest were used in this study.

Both the spelling and mathematics portion of the WRAT yields raw scores, percentiles, grade equivalencies, and standard scores. Within the statistical analysis in this study, standard scores were used.

The revised WRAT was administered to children and adults in seven states. No attempt was made to obtain a representative national sampling. All ethnic groups were included in the norms as they were represented in the population at large. Each age group is composed of 50% males and 50 per cent females.

The split-half correlation coefficients and standard errors of measurement are summarized in Table II for 7 age groups at both Levels I and II of the 1965 revision.

TABLE II

SUMMARY OF RELIABILITY COEFFICIENTS AND ERRORS OF MEASUREMENT FOR THREE WRAT SUBTESTS, LEVELS I AND II

Test	Level I (7 groups, N = 200 each) Ages	r	SEM
Reading	5-11	>.98	1.05-1.39
Spelling	5-11	>.96	.86-1.20
Arithmetic	5-11	>.94	.88-1.42
Test	**Level II (7 groups, N = 200 each) Ages**	**r**	**SEM**
Reading	12-24	>.98	1.33-1.70
Spelling	12-24	>.97	1.13-1.34
Arithmetic	12-24	>.94	1.21-1.38

Jastak, et al., 1976

They were determined on samples of 200 individuals selected in such a way as to represent probability distributions of achievement based on normative data.

The authors of the 1946 WRAT manual have listed correlations with other achievement tests; those results are listed in Table III.

TABLE III

WRAT COMPARED TO OTHER ACHIEVEMENT MEASURES

WRAT Reading (1946) vs. New Stanford Word Reading -- +.81 (N = 389, grades 7 & 8)
WRAT Reading (1946) vs. New Stanford Word Reading -- +.84 (N = 389, grades 7 & 8)
WRAT Spelling (1946) vs. New Stanford Dictation Test ----- +.93 (N = 140, grades 7 & 8)
WRAT Arithmetic (1946) vs. New Stanford Arithmetic ---- +.91 (N = 140, grades 7 & 8)

Jastak, et al., 1976

Torrance Tests of Creative Thinking

The Torrance Tests of Creative Thinking (TTCT) include four forms of test activities, two verbal and two figural. Both the figural and verbal forms can be used from kindergarten through graduate school.

The figural forms can be administered as group tests throughout this educational range. The verbal form can be administered as a group test as low as fourth grade. Below the fourth grade, however, it is necessary to administer the verbal activities orally and individually in order to obtain valid and reliable measures.

The verbal tests consist of seven parallel tasks, each battery requiring a total of 45 minutes. The activities involve: asking questions about a drawing, making guesses about the possible consequences of the event, producing ideas for improving a toy so that it will be more fun to play with, thinking of unusual uses of tin cans or cardboard boxes, asking provocative questions, and thinking of the varied possible ramifications of an improbable event.

The figural tests include three activities with an overall administration time of 30 minutes. The first task, picture construction, is designed to assess originality and elaboration. The two succeeding tasks, incomplete figures and repeated figures, elicit increasingly greater variability in fluency, flexibility, originality and elaboration.

Each one of the subtests within the verbal portion of this test is graded on flexibility, fluency, and originality. The figural subtests are graded for fluency, flexibility, originality, and elaboration. These seven different areas which are being measured are scored separately and yield a raw score and a T-score. The T-score was used in the statistical analysis within this study.

The author has sampled students at each grade level from a variety of localities within the United States and from a variety of types of schools and colleges. The present norm group is multi-racial and

multi-ethnic and is intended to be representative of the mid-range of most school populations.

Two studies have been completed using all four of the complete batteries. The first study involved 118 fourth, fifth, and sixth grade children in St. Croix, Wisconsin; and the second (Hagender, 1967) involved 54 fifth graders in White Bear, a St. Paul, Minnesota, suburban school participating in a creative writing experiment (28 experimental and 26 control). The results of these test-retest studies are shown in Table IV.

TABLE IV

PRODUCT MOMENT COEFFICIENTS OF CORRELATION BETWEEN SCORES ON FORMS A AND FORMS B OF THE TORRANCE TESTS OF CREATIVE THINKING IN THREE SITUATIONS

Measure	Wisc. Gr. 4-6	Coefficients of Correlation Minn. Sub. Gr. 5	
		Exper.	Control
Verbal Fluency	.93	.87	.79
Verbal Flexibility	.84	.84	.61
Verbal Originality	.88	.79	.73
Figural Fluency	.71	.50	.80
Figural Flexibility	.73	.63	.64
Figural Originality	.85	.60	.60
Figural Elaboration	.83	.71	.80

Torrance, 1974

Many construct validity studies have been conducted involving children. The Torrance Tests of Creative Thinking have been used in conjunction with psychiatric interviews (Weisberg & Springer, 1961), the Rorschach Ink Blots, I.Q. tests and Draw a House-Tree-Person (Torrance 1962), Frenkel-Brunswick Revised California Inventory (Fleming & Weintraub, 1962), Children's Self-Social Constructs Tests and Self-Complexity Index (Long, Henderson & Zeller, 1965) and several others.

Coefficients of correlation were significant at better than the .01 level in comparison of some of the TTCT subtests and the Frenkel-Brunswick Revised California Inventory. Yamamoto (1963) also used the Frenkel-Brunswick in conjunction with parts of the TTCT and obtained coefficients of correlation of .49 and .51. Several of the construct validity studies listed above were conducted using the TTCT to help confirm different personality characteristics of creative and talented students.

School Sentiment Index (SSI)

In this intermediate level inventory, students respond by marking "true" or "untrue" to a series of statements regarding school to indicate whether or not each statement is true for them. The statements involve student perceptions of, or attitudes toward, various aspects of school rather than a mere objective reporting of these aspects (Appendix H).

This self-report device attempts to secure, in a rather straightforward fashion, a student's responses to statements pertaining to five aspects of attitude toward school. Examples of such dimensions

(for which each subscale is scored) are: (1) Teacher: "My teacher makes sure I always understand what she wants me to do." (mode of instruction); "My teacher treats me fairly." (authority and control); "I like my teacher." (interpersonal relationship). (2) Learning: "I would rather learn a new game than play one I already know." (3) Social Structure and Climate: "The principal of my school is friendly toward the children" (4) Peer: "I really like working with the other children in my class." (5) General: "I often get headaches at school."

Eighty-one items are administered, and those items representing each subscale are scored, yielding information about each subscale as well as a global estimate of attitude toward school. The global estimate or total raw score was used in the statistical treatment of this test. All subscales were combined to yield a total score.

The School Sentiment Index was normed on 1,229 pupils from eleven schools in several southern California school districts. Five of these schools were identified as representing low socioeconomic status, five as representing middle socioeconomic status, and one representing high socioeconomic status situations.

Listed in Table V are the reliability coefficients for the intermediate level of the School Sentiment Index. No validity studies are available on this device.

Intellectual Achievement Responsibility (IAR) Scale

The Intellectual Achievement Responsibility Scale attempts to measure beliefs in internal or external reinforcement responsibility. This scale assesses children's belief in reinforcement responsibility exclusively in intellectual-academic achievement situations.

TABLE V

INTERNAL CONSISTENCY AND STABILITY ESTIMATES
FOR THE REVISED INTERMEDIATE LEVEL
OF THE SCHOOL SENTIMENT INDEX

Subtest	Internal Consistency Index		Test-Retest Stability Index	
	n	r	n	r
SSI - Total	54	.80	129	.83
Teacher - Instruction	67	.76	141	.70
Teacher - Authority	66	.71	141	.77
Teacher - Peers	67	.65	139	.81
Peers	60	.54	135	.73
Learning	81	.71	137	.63
Soc. Struc. and Climate	63	.47	137	.70
General	67	.73		

Instructional Objectives Exchange, 1972

The IAR limits the source of external control to those persons who most often come in face-to-face contact with a child - his parents, teachers and peers.

The children's IAR scale is composed of 34 forced choice items. Each item stem describes either a positive or a negative achievement experience which routinely occurs in children's daily lives. This stem is followed by one alternative stating that the event was caused by the child and another stating that the event occurred because of

the behavior of someone else in the child's immediate environment (Appendix I). This test yielded +I scores, -I scores, or the combination of +I and -I scores which are called total I scores. The total I score was used in the statistical analysis of this test within the study.

The normative sample was composed of 923 elementary and high school students and was drawn from five different schools so that it would be representative of children in diverse kinds of communities. The socioeconomic status was determined by Hollingshead's Two Factor Index of Social Position (Hollingshead, 1957), and the intellectual status was measured by the California Test of Mental Maturity and Lorge-Thorndike. Both the socioeconomic and intellectual factors were normally distributed for the sample population.

To determine test-retest reliability, forty-seven children in grades 3, 4, and 5 were given the test a second time after a two-month interval. The test-retest correlations were .69 for total I scores, which were significant at the .001 level. There were no significant sex differences in any of the correlations.

The associations found by the authors to demographic variables and achievement behaviors lend some support to the construct validity of children's beliefs in their control of reinforcements as measured by the IAR scale.

Procedure

In October, 1977, all 4th, 5th, and 6th grade students in the Enid Public Schools were administered the Gates-MacGinitie Reading Test (Survey D, For 1M) as part of their regular classroom testing

program. Later in November all prospective applicants for the ACTion Program were administered the Torrance Tests of Creative Thinking (Figural and Verbal portions, Form A). Those tests were administered to groups of children within their respective schools.

Tests were usually administered to the children in the school library or lunchroom. Students were informed that they would be asked to take some unusual tests, taking them a couple of hours to complete. The subjects were then told that they were being considered, from their respective schools, for the Academically and Creatively Talented Program. The ACTion Program was briefly explained to the subjects and all questions were answered. The purpose of the testing was then explained to the students, including the need by the selection committee for more information about their creative talents to be used in the selection process for the ACTion Program.

The Verbal portion of the Torrance Tests of Creative Thinking was administered first. There was a break between sections of the TTCT, after which the Figural portion of the TTCT was administered. Following the completion of the TTCT and after all the forms were collected, the examiner explained that just thirty-two children would be chosen to participate in the ACTion Program from all fourteen elementary schools in Enid. It was further explained that those children who were not chosen to participate in the program would be eligible for possible placement in the ACTion Program the following year or as space would be available if someone should withdraw from the program. The students were then admonished about their behavior in regard to the rest of the children in their school who were not being considered for this special program. The admonishment communicated that children have special

needs and that the children who were being considered for the special program were not any better than other children, just different with differing needs. They were then told that they would receive word about whether they would be accepted or not within a couple of weeks. Any further questions were then answered by the examiner.

Within two weeks of completion of the testing, all children were informed, by mail and in person, if they were to begin in the ACTion Program or become part of the reserve group. The ACTion students became the experimental group in this study, and the reserve group became the control group for the purpose of program evaluation.

During the latter part of December, 1977 and early January, 1978, the experimental and control groups were administered the Intellectual Achievement Responsibility Scale, and the Math and Spelling portions of the Wide Range Achievement Test. The examiner would give the school principal a list of the control group of children within his school who needed to be tested. The principal would ask those specific students to report to either the lunchroom or library with a pencil. Once all the children were assembled, the examiner identified himself and reminded the group of the previous testing completed with them. He then reacquainted them with the ACTion Program and the purpose of the program. He indicated that the group of children assembled were on a reserve list for the ACTion Program and would be considered for the ACTion Program if someone dropped out of the program during the year and would be given priority consideration for the following year. The examiner asked the students to complete all the identifiable information on the WRAT test form and to write their name on the top of the IAR questionnaire.

The students over twelve were administered Level II of the WRAT, and those under twelve were administered Level I. The examiner read Level I spelling words on the spelling portion of the WRAT to those children below age twelve, while those children over age twelve completed the Level II math portion of the WRAT on their own. Upon completion of those subtests, the examiner read the list of spelling words from the Level II list to the group of children over twelve, and allowed the students under twelve to complete the Level I math subtest from the WRAT. Following completion of the WRAT, all the children completed the IAR scale. Upon completion of all the testing, the children were thanked for their cooperation and informed that they would again be tested near the end of the school year.

The experimental group was administered the WRAT and IAR in late December or early January. This group of children was administered the tests in the same manner as the control group, except that the experimental group was administered the tests in the ACTion classroom.

Post-testing for the experimental and control groups took place in May, 1978. Again the control groups were tested within their respective schools and the experimental group was tested within the ACTion Program classroom. Both the experimental and control groups were administered the Gates-MacGinitie Reading Test (Survey D, Form 2M), the Torrance Tests of Creative Thinking (Verbal and Figural, Form B), Wide Range Achievement Test (mathematics and spelling), and Intellectual Achievement Responsibility Scale. The School Sentiment Index was administered to each group, but in this case the examiner asked that the subjects not put their names on the answer sheet, in an effort to preserve the anonymity of the respondent and to obtain more truthful responses.

Summary

The thirty-two students who participate in the ACTion Program meet two afternoons per week for two and one-half hour sessions. The 38 children who make up the control group of students maintain a regular classroom schedule. The ACTion Program is located in a special education center within the Enid Public Schools. Students were selected from 14 different elementary schools. The subjects in this study come from a cross section of socioeconimic backgrounds. Of the seventy 4th, 5th, and 6th grade students in this study, 39 were female and 31 were male.

Students were chosen for the ACTion Program on the basis of I.Q. tests, achievement tests, tests of creative thinking, and teacher recommendations. A selection committee of school personnel and parents chose thirty-two children out of the 70 applicants for the ACTion Program.

Tests which are employed in this study include the Gates-MacGinitie Reading Test, Wide Range Achievement Test (WRAT), Torrance Tests of Creative Thinking (TTCT), School Sentiment Index (SSI), and Intellectual Achievement Responsibility Scale (IAR).

All the students in this study were administered the Gates-MacGinitie Reading Test, TTCT, WRAT, and IAR by the time the program began in December, 1977. The subjects were all tested near the end of the school year with the same tests or different forms of the same test, and an additional test entitled the School Sentiment Index.

Limitations

There are several limitations and drawbacks to this type of evaluative study. One very obvious and difficult road block to overcome is the problem of how to measure or evaluate all the many components of a special program. For example, there have been 23 specific objectives (see Appendix A) written for this program, yet only four are being evaluated. It would be extremely tedious and time consuming to evaluate all the objectives, but to do so would be the only accurate way of measuring a program's overall effectiveness. Only a few key variables of the ACTion Program could be examined due to the constraints associated with a school setting, as well as limitations on the amount of time and money allotted for evaluation purposes.

Another problem associated with this study has to do with subject selection. The subjects in this study were not randomly assigned to groups; therefore the internal validity of this study is suspect.

Finally, as in many studies completed within the school setting, it is nearly impossible to control all the hundreds of variables which may affect students' attitudes and performances.

CHAPTER IV

TREATMENT OF DATA AND SUMMARY OF RESULTS

A nonequivalent control group design was employed in this evaluation study. In determining whether significantly better scores were made on the part of the experimental group, statistical analysis of the data was completed via the use of the *t*-test.

A two-tailed *t*-test was used to determine significance in those cases where both the experimental and control groups were found to be statistically equivalent (derived from pre-test scores) on individual measures designed to confirm or reject the different hypotheses of this study. In those cases in which the experimental group was found, on the basis of pre-test scores, to be statistically different from the control group, the amount of change was computed for each child and then those change scores were statistically compared. Richards (1975, p. 299), in a study of change measures, found that "simple gain scores measure the true situation about as accurately as other change estimates."

The experimental and control groups were compared on measures of creativity, reading, spelling, and mathematics. There was also a comparison of the groups' feelings about school and intellectual achievement responsibility.

Within this section, all of the *t*-scores gained when comparing the experimental and control groups are listed in Tables I through III.

The tables include the indicated levels of significance as well as the direction of the two-tailed t-tests. A plus sign indicates a positive direction, or a direction in favor of the experimental group. A negative sign indicates that the direction is in favor of the control group. The letter g shown before a t-score within the tables indicates that the t-score was figured using gain scores. Those t-scores without a g preceding them were figured using post-test scores.

Table I lists the t-scores from the statistical comparison of groups on the Torrance Tests of Creative Thinking, figural and verbal parts.

Table II displays the t-scores derived from a comparison of groups on the Wide Range Achievement Test and Gates-MacGinitie Reading Tests.

Table III shows the pre-test and post-test t-scores from the Intellectual Achievement Responsibility Scale. The results of the t-tests comparing experimental and control groups indicate that there was no significant difference between groups.

Results of the statistical tests comparing groups on the School Sentiment Index indicate that there is no significant difference between the two groups of students. The t-score is +.5368.

TABLE VI

1978 TTCT *t*-TEST RESULTS

Group	Verbal			Figural			
	Flu.	Flex.	Orig.	Flu.	Flex.	Orig.	Elab.
4th Grade	^{g}+ .8588	^{g}+1.209	+3.082**	^{g}-2.181*	^{g}-2.420*	^{g}+1.199	+2.532*
5th Grade	^{g}+4.067***	^{g}+4.155***	+2.574*	+2.222*	+2.412	+3.470**	^{g}- .6125
6th Grade	^{g}+3.727**	^{g}+4.542***	^{g}+4.897***	+2.792*	+2.466*	^{g}+2.023	+2.471*

* Significant $p < .05$
** Significant $p < .01$
*** Significant $p < .001$

4th gr. df = 21
5th & 6th gr. df = 19

^{g} = calculated using gain scores

TABLE VII

1978 WRAT AND GATES-MACGINITIE *t*-TEST RESULTS

Group	WRAT		Gates-MacGinitie			
	Spelling	Math	Number Att.	Number Rt.	Vocab.	Comp.
4th Grade	+2.968**	+2.943**	[g]-1.070	[g]-.8070	[g]-1.204	+1.415
5th Grade	- .0669	- .3112	- .6029	+.1853	+ .0849	+ .2947
6th Grade	+1.395	- .3823	+ .6910	+.8291	[g]+ .0109	+3.322**

* Significant $p < .05$
** Significant $p < .01$
*** Significant $p < .001$

4th & 5th gr. df = 19
6th gr. df = 17

[g] = calculated using gain scores

TABLE VIII

INTELLECTUAL ACHIEVEMENT RESPONSIBILITY SCALE t-TEST RESULTS

1977 Pre-test t-score	1978 Post-test t-score
-.0124	-.6005

* Significant $p < .05$

Pre-test df = 53
Post-test df = 64

Discussion

Test results indicate that there were significant differences between groups on many sections of the Torrance Tests of Creative Thinking. Thirteen out of twenty-one, or almost two-thirds, of the sections measured from the TTCT showed significant gains on the part of the experimental groups. The 5th and 6th grade ACTion students appeared to make significant gains over those children who were not exposed to the ACTion Program in the area of creativity. Eleven out of fourteen, or almost 80 per cent of the subtests measured with the TTCT were significantly in favor of the experimental groups.

More specifically, the 4th grade experimental group made significant gains in the area of verbal originality. This indicates that subjects are able to produce ideas which are out of the ordinary or not commonplace. The 4th grade experimental group also scored significantly higher in the area of figural elaboration, which reflects the subject's ability to develop and carry out elaborate ideas.

The control group's gains were greater on figural fluency and flexibility, two subtests which measure the production of large numbers of ideas and variety of kinds of ideas, respectively.

An interpretation of these 4th grade experimental and control group scores involves looking at the pre-test t-scores of both groups. As shown in Table IX, the 4th grade experimental group scored significantly higher than the 4th grade control group on the pre-test in the areas of verbal fluency and flexibility and also in the areas of figural fluency, flexibility and originality. When post-tested, though, this trend did not continue. In the areas of figural fluency and flexibility, the control group scored significantly higher than the experimental group (see Table VI).

The purpose of a creativity training program is to produce even increased growth of creative thinking skills. Many different components are involved in creative thinking as measured by the Torrance Tests of Creative Thinking, and the desired outcome of a creativity training program is a consistent increase of performance in all areas of creative thinking. Therefore, the significant scores that the 4th grade control group has obtained do not necessarily indicate growth on the part of the control group, but rather a leveling off or plateau on the part of the 4th grade experimental group. Because the TTCT is a timed test, very high scores on one part of a subtest would generally mean lower scores on another part of a subtest. For example, the 4th grade control group had high scores on the figural fluency and flexibility parts of different subtests, which measured quantity and differing categories of ideas, but the same group had low scores on the originality and elaboration parts of the subtests. The experimental group, however, made

TABLE IX

PRE-TEST TTCT t-TEST RESULTS

Group	Verbal			Figural			
	Flu.	Flex.	Orig.	Flu.	Flex.	Orig.	Elab.
4th Grade	2.808**	2.172*	1.984	3.320**	3.119**	4.615***	1.925
5th Grade	2.148*	2.150*	2.056	0.408	0.303	1.121	3.680**
6th Grade	3.943***	4.579***	4.130***	0.765	1.005	3.278**	2.716

* Significant $p < .05$
** Significant $p < .01$
*** Significant $p < .001$

4th gr. df = 23
5th gr. df = 21
6th gr. df = 19

steady growth in all areas, not just one or two parts of the subtests. The significant t-scores on the part of the 4th grade experimental group indicated an even increase of growth of creative thinking skills.

The 4th grade test results should be compared to the 5th and 6th grade test results since the 4th, 5th and 6th grades were all taught together in the ACTion Program. The 5th grade TTCT post-test results (see Table VI) indicate that the experimental group scored significantly better than the control group in all areas of the verbal part of the TTCT and the fluency and originality subtests of the figural part. The 6th grade experimental group, like the 5th grade group, scored significantly better than the control group on all areas of the verbal portion of the TTCT, as well as the fluency subtest of the figural part. The 6th grade experimental group, in addition, scored significantly better than the control group in the figural, flexibility and elaboration subtests. Table X shows a comparison of the 4th, 5th, and 6th grade TTCT test results indicating only those areas of significance.

According to Richards (1975), in order for statistical significance to occur when comparing change scores, as we are with many of the TTCT t-tests, the underlying relationships must be substantial. Thus, after only six months in the program, we can conclude that the ACTion students significantly improved their creative thinking skills.

In the content area of spelling, it appears that the 4th grade experimental group scored significantly better than the 4th grade control group, although there was no significant difference between the 5th and 6th grade experimental and control groups (see Table VII). Since the 4th graders did not do group activities differently than the 5th or 6th graders in the ACTion Program, it is difficult to pinpoint a

TABLE X

A COMPARISON OF 4th, 5th, & 6th GRADE
TTCT *t*-SCORE SIGNIFICANCES

Group	Verbal			Figural			
	Flu.	Flex.	Orig.	Flu.	Flex.	Orig.	Elab.
4th Grade			*	*	*		*
5th Grade	*	*	*	*		*	
6th Grade	*	*	*	*	*		*

* Significant $p < .05$

reason for the 4th grade significance. One might suspect that the activities in the ACTion Program may be geared to a level where those students with the least background in vocabulary and language, and with the fewest years of education, may benefit most from the enrichment experiences.

In looking at the mathematics content area, again the 4th grade ACTion students did significantly better than the 4th grade control group on the mathematics portion of the Wide Range Achievement Test. This significance was restricted to the 4th grade experimental group, for the 5th and 6th grade groups did not score significantly better or worse than the 5th or 6th grade control groups (see Table VI). Here again, one might conclude that the ACTion teacher may have presented enrichment activities in the mathematics domain which signficantly helped the 4th grade experimental group but perhaps did not serve to significantly increase mathematics skills of the 5th and 6th grade ACTion students.

The results listed in the preceding two paragraphs are significant in that they lend credance to the hypothesis that some "auxiliary" learning may take place in measurable form as a result of the ACTion Program. This is especially true as the ACTion Program teacher never directly taught spelling or math calculation skills to her students. It is also significant to note that although the Wide Range Achievement Test is not a sensitive comprehensive diagnostic test, it still identified changes in the ACTion Program's 4th grade students in the areas of spelling and math calculation.

In reading, several different skills were measured, including vocabulary, comprehension and speed and accuracy. As indicated in

Table VI, there were no significant differences in reading skills as measured by the Gates-MacGinitie Reading Test between 4th grade, 5th grade, or 6th grade experimental and control groups except in one area. There was a significant difference between 6th grade experimental and control groups in the area of reading comprehension. The experimental group scored significantly higher than the control group in this single area.

Although there is only one significant difference between groups of subjects out of twelve areas measured from the Gates-MacGinitie Reading Test, there are some interesting conclusions which can be arrived at concerning the ACTion Program. Even though the ACTion students were out of the regular classroom for twenty per cent of the school week, these results show that the ACTion students have not lost any measurable academic skills in the areas of reading. It is also evident that no skills were lost by the ACTion students in the areas of spelling and math. In fact, some of the students gained in academic areas out of the regular classroom.

This same trend continues when comparing the experimental and control groups in areas of intellectual achievement responsibility and their feelings about school. There were no differences between groups on the Intellectual Achievement Responsibility Scale or School Sentiment Index. This information shows that the experimental group did not gain or lose any of the motivation or responsibility for their own achievement that allowed them to qualify for this special Academically and Creatively Talented Program. Nor did this special program contribute to poor feelings about school on the part of the ACTion Program students when compared to the control group of students.

The average score of 4th, 5th, or 6th grade students is twenty-five out of thirty-four total I points on the Intellectual Achievement Responsibility Scale. With the experimental and control groups averaging between twenty-seven and twenty-nine points on the IAR Scale, it would indicate that the experimental and control groups of gifted students take more responsibility for their intellectual achievement than do most 4th, 5th, and 6th grade students. In fact, the average 12th grade student scores about 25.93 total I points on the IAR Scale.

Test scores comparing groups of subjects on the School Sentiment Index shows that, although none of the hypothesized gains were made on the part of the ACTion students, no poor feelings about school were developed as a result of this special program.

Summary

A nonequivalent control group design was employed in this study. Data was analyzed via the use of t-tests comparing post-test scores or gain scores. Experimental and control groups of 4th, 5th, and 6th grade students were compared on measures of creativity, spelling, mathematics, reading, intellectual achievement responsibility, and feelings about school.

Results indicate that in the areas of creativity training, the 4th grade experimental group scored significantly better than the 4th grade control group in the areas of verbal originality and figural elaboration on the TTCT. The fourth grade control group significantly outscored the experimental group in figural fluency and flexibility. The 5th grade experimental group scored significantly better than the 5th grade control group in verbal fluency, flexibility, and originality.

The fifth grade experimentals also scored significantly higher in figural fluency and originality. The 6th grade experimental group scored signficantly better than the 6th grade controls in the areas of verbal fluency, flexibility, and originality. They also scored significantly better in the figural fluency, flexibility, and elaboration areas.

Results from the WRAT indicate significant differences in the area of math calculation when the 4th grade experimental group scored significantly better than the 4th grade control group. Results from the spelling content area indicate significance in favor of the 4th grade experimental group over the control group.

Within the results measuring reading content area growth, one significant t-score existed in that the 6th grade experimental group was higher than the 6th grade control group in the comprehension subtest of the Gates-MacGinitie Reading Test.

No significant differences were evident between groups as measured from the Intellectual Achievement Responsibility Scale or the School Sentiment Index.

These results indicate that the students in the ACTion program have made tremendous gains in the areas of creativity training. Some of the ACTion students have also made gains in academic performance such as math calculation, spelling, and reading comprehension. The students in the ACTion Program have maintained high levels of intellectual achievement responsibility and continue to have positive feelings about school.

CHAPTER V

CONCLUSIONS, RECOMMENDATIONS, IMPLICATIONS

It was found that the Enid ACTion Program signficantly helped change students' behavior in many of the areas evaluated. After only six months of attendance in a special enrichment program, the students in the ACTion Program have made important gains. Growth has occurred in the areas of creativity along with successes in other academic and social skills. Some of the ACTion Program students have won state and local awards in creative writing and the fine arts as an outgrowth of this special program.

This study has sought to evaluate the effectiveness of a special enrichment program through the use of psychometric instrumentation. There are different strengths and weaknesses to this kind of approach. Tests are valuable in measuring students' growth or the lack thereof in definitive terms. But because the implications from test results are so strong, especially when program funding stands in the balance, one has to be sure that not only the test measures what it is supposed to measure, but that it measures it in enough depth and breadth. For example, within this evaluative study the author attempted to measure student gains in the area of mathematics. The WRAT was used because of the need to conserve time, but was inadequate because of its insensitivity to other areas of mathematics besides math calculation. This factor is especially important since one might expect an enrichment

program for gifted students to have a more significant effect on say, math reasoning as opposed to math calculation. Not only test comprehensiveness is important to consider, but test ceiling. Tests like the Gates-MacGinitie Reading Test and the IAR Scale did not have adequate ceilings due to the especially high reading levels and high levels of personal achievement responsibility the subjects had. Therefore a negatively skewed distribution existed with most of the subjects' scores on the top end of the scale.

Because of the nature of this study, using pre-test and post-test measures, the author ended up answering the question, 'What happened as a result of this special program?' Not really knowing, definitively, why it happened. Therefore, an ongoing evaluation throughout the school year as well as pre- and post-measures would lead to a better possibility of knowing what and why - looking at curriculum, materials, student behavior, and especially the teachers' behavior.

The teacher of the ACTion Program played a critical role in its effectiveness. All the special curriculum materials and theoretical constructs were helpful but were only the tools of a skilled professional teacher. In order for a successful program to develop, one needs a teacher who is creative, resourceful, and is committed to the program.

Finally, as an outgrowth of the elementary ACTion Program, the Enid Board of Education instituted a 7th and 8th grade academically and creatively talented program entitled ACT II which will continue the good work which was begun in the ACTion Program.

A SELECTED BIBLIOGRAPHY

Bergeth, R. C. The high potential program in the Minneapolis schools: An evaluation. Unpublished manuscript. 1975 (Minneapolis Public Schools, Minnesota Department of Research and Evaluation).

Bloom, B. S. Taxonomy of educational objectives: The classification of educational goals. New York: David McKay Company, Inc., 1956.

Boyd, K. A. A discussion of gifted education programs for Charles county. Maryland, 1976. (ERIC Document Reproduction Service No. ED 119 411)

California State Department of Education. Educating the gifted in California schools, Part I: Plan for the education of gifted individuals in California schools. Part II: Report of the blue ribbon committee for education of the gifted. Sacramento, California, 1975.

California State Department of Education. Education programs for gifted pupils: A report to the California legislature prepared pursuant to section 2 of chapter 2385, statutes of 1957. Sacramento, California, 1961.

Crandall, V. C., Katkorsky, W., & Crandall, V. J. Intellectual Achievement Responsibility scale, 1962, 91-109. Children's beliefs in their own control of reinforcements in intellectual - academic achievement situations. Child Development, 1962.

Davis, W. Q. A study of test score comparability among five widely used reading survey tests. Unpublished Doctoral dissertation, Southern Illinois University, 1968.

Feldhusen, J. F., Rand, D., & Crowe, M. Designing open and individualized instruction at the elementary level: A guide for the individual teacher. Paper presented at the APA Annual Convention, Montreal, Quebec, Canada, August/September, 1973.

Feldhusen, J. F., Treffinger, D. J., & Bahlke, S. J. Developing Creative Thinking: The Purdue Creative Thinking program. The Journal of Creative Behavior, 1970, 4 (2), 90.

Feldhusen, J. F., Bahlke, S. J., & Treffinger, D. J. The Purdue Creative Thinking program: Research evaluation. Purdue University, 1970.

Feldhusen, J. F., Treffinger, D. J., & Elias, R. M. The right kind of programmed instruction for the gifted and talented. NSPI Journal, 1969, 8, 6-11.

Feldhusen, J. F., & Treffinger, D. J. The role of instructional material in teaching creative thinking. Gifted Child Quarterly, 1977, 21, 2.

Fleming, E. S., & Weintraub, S. Attitudinal rigidity as a measure of creativity in gifted children. Journal of Educational Psychology, 1962, 53, 31-85.

Gates, A. I., & MacGinitie, W. H. Gates-MacGinitie Reading Test. New York. Teachers College Press, Columbia University, 1965.

Hagender, H. Influence of creative writing experiences on general creative development. (Master's research paper, University of Minnesota, Minneapolis, 1967).

Heath, R. W., Curriculum evaluation. In A. W. Fashay & L. A. Beilen (Eds.) Encyclopedia of Educational Research (4th edition), Teachers College - Columbia University, 1969, 680-683.

Hollingshead, A. The two factor index of social position. New Haven: Privately printed, 1957.

Instructional Objectives Exchange. School Sentiment Index. Los Angeles, California: Author, 1972.

Jastak, J. F., & Jastak, S. R. Wide Range Achievement Test. Delaware: Guidance Associates of Delaware, Inc., 1976.

Khatena, J. Project talented and gifted: Final evaluation report. West Virginia State Department of Education, Charleston, 1976, (Sponsoring Agency - Bureau of Elementary and Secondary Education, Washington, D. C.).

Long, B. H., Henderson, E. H., & Ziller, R. C. Self-social correlates of originality in children. Unpublished manuscript, University of Delaware, Newark, 1965.

Mitchell, P. B., & Erickson, D. K. The education of gifted and talented children: A status report. Exceptional Children, September, 1978, 12-15.

Pringle, R. G. The Whitman county project for academically talented students: An evaluation. Spokane, Washington, June, 1971. (ERIC Document Reproduction Service No. ED 128 666).

Renzulli, J. S. Enrichment triad model: A guide for developing defensible programs for the gifted and talented. Gifted Child Quarterly, 1976, 20, 303-326.

Renzulli, J. S., & Smith, L. H. Evaluating programs for the gifted: some problems and procedures. The School Psychology Digest, 1976, 5, 16-24.

Richards, J. M. A simulation study of the use of change measures to compare educational programs. American Educational Research Journal, 1975, 12, 299.

Roth, J., & Sussman, S. Educating gifted children. Toronto: York Borough Board of Education, Toronto (Ontario). (ERIC Document Reproduction Service No. ED 115 050)

Sanders, D. C. Elementary education and the academically talented pupil. National Education Association, Washington, D. C., 1961. (ERIC Document Reproduction Service No. ED 001 711)

Shively, J. E., Feldhusen, J. F., Treffinger, D. J., & Asher, J. W. Effect of creativity training programs and teacher influence on pupils' creative thinking abilities and related attitudes. Paper presented at the Annual Meeting of the American Education Research Association, New York, 1971.

Taylor, C. W. Multiple talent teaching. Today's Education, NEA Journal, March-April, 1974.

Taylor, C. W. Turning origins of creativity into lifelong resources. In The origins of creativity. Symposium presented at the meeting of the 1973 APA (Abstract).

Tongue, C. & Charmian An Identification model: Gifted and talented. Raleigh, North Carolina: North Carolina State Department of Public Instruction, Division for Exceptional Children, 1976. (ERIC Document Reproduction Service No. ED 125 226)

Torrance, E. P. Can we teach children to think creatively? Journal of Creative Behavior, 1972, 6, 114-143.

Torrance, E. P. Gifted children in the classroom. New York: Macmillan, 1965.

Torrance, E. P. Guiding creative talent. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962.

Torrance, E. P. Personal Communication, April 8, 1978.

Torrance, E. P. Torrance tests of creative thinking. Lexington, Massachusetts: Ginn and Company, 1974.

Treffinger, D. J. Teaching for self-directed learning: A priority for gifted and talented. Gifted Child Quarterly, Spring, 1975.

Weisberg, P. S., & Springer, K. J. Environmental factors in creative function. Archives of General Psychiatry, 1961, 5, 554-564.

Wurster, S. R., & Ball, K. M. Human individual potentialities: An innovative program for the talented and gifted. July, 1976. (ERIC Document Reproduction Service No. ED 125 173)

Yamamoto, K. Creative writing and school achievement. School and Society, 1963, 91, 307-308.

APPENDIX A

ACTion PROGRAM OBJECTIVES

ACTion

PROGRAM OBJECTIVES

The ACTion program will provide learning experiences which are subject-related, process-oriented, doing-centered, open-ended, and/or student-selected.[1]

Evaluation will be based upon teacher-made instruments and the evaluation process will involve students, parents, classroom teachers, and ACTion staff.

Students will demonstrate improvement to the satisfaction of themselves, those responsible for their education, and those responsible for the program.

Specific Objectives of the Program shall be:

1. To increase self-initiated learning

   1.1 To maintain and/or improve high academic performance

   1.2 To develop and/or increase intrinsic motivation

   1.3 To increase awareness and acceptance of own abilities

   1.4 To increase ability to develop personal goals and organization

   1.5 To improve skills necessary in the acquisition of information and knowledge

   1.6 To improve skills in reporting techniques

2. To extend creative talents

   2.1 To develop and/or increase divergent thought processes

   2.2 To create original products

   2.3 To develop and/or increase appreciations for the creative talents and products of others; aesthetic values.

   2.4 To develop and/or increase in awareness of and appreciation for personal talents and products

3. To improve leadership skills; to realize the responsibilities as well as the power of knowledge

   3.1 To utilize the democratic process through group interaction

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[1]Kaplan, Sandra N., Providing Programs for the Gifted and Talented: A Handbook. Ventura County California Schools, 1974. Prepared pursuant to a Grant from the U.S. Office of Education.

Incorporated in Guidelines for Gifted/Talented Education, Oklahoma State Department of Education, 1976.

ACTion

PROGRAM OBJECTIVES (Cont'd.)

3.2 To observe and evaluate leadership models in life situations

3.3 To investigate and practice leadership skills

3.4 To utilize leadership skills in the service of others

3.5 To explore alternative choices and experience decision-making situations

3.6 To investigate and gain knowledge of a wide variety of career field possibilities

3.7 To investigate and gain knowledge of career field contributions to mankind

4. To increase skills of social interaction

4.1 To contribute to an atmosphere of acceptance and sharing

4.2 To develop and/or grow in positive self-concept

4.3 To improve sensitivity to the needs of others

4.4 To practice social skills in small team and group play

4.5 To gain proficiency in verbalizing and dealing with feelings

4.6 To participate in projects of cooperative group production

APPENDIX B

LOG OF WEEKLY ACTIVITIES

WEEK 1

Humanizing	Getting to know one another. (Friendship Tree)
Brainstorming	About possible problems one might encounter by being in ACTion. Solutions were brainstormed.
Ecology Scavenger Hunt	General exploratory activities. (Categorize, Classify). Problems with the ecology were discussed.
Reading	"The Fir Tree" by Hans Christian Anderson and Tasha Tudor. Compared the two versions for literary quality, emotions, and feelings.

CHRISTMAS SCAVENGER HUNT

Something green as a Christmas tree,
Something brown as the trunk may be.
Something white as the snows that blow,
Something bright as the lights that glow.
Something strange for someone's sock,
Something gray - but not a rock.
Something red like Santa's suit,
Something black just like his boot.
Something dried like a wreath for the door,
Something soft, then two things more:
Something old like the season's joy.
Something new like a Christmas toy.

WEEK 2

Learning Centers	Room was divided into centers; students completed all three holiday oriented learning centers.
Reading	"Gift of the Magi" - Discussed literary quality.
Brainstorming	What is giving?
Reading	"Father Christmas Letters" by Tolkien Sent coded letters to classmates who decoded the letters. All students decorated their own letters.

WEEK 2 (Cont'd.)

TREE TRIMMERS

In the allotted time, make as many ornaments for our Tumbleweed Tree as you are able.

Make your design original - but practical!

Leave the center as neatly as you found it! Pick up all scraps.

STORY STARS

Read the short stories in each star packet.

When you have finished, choose one of the following:

a. Write a story in which YOU are one of the characters in one of the legends you just read.

b. Write a summary of your favorite legend and tell why you think you liked it best.

c. Invent a new Christmas legend. Write a story to tell us how it began and what it means.

d. List the title of each legend and tell what each one reminds you of in your own family Christmas celebration. It might remind you of a person or of something you do at Christmas time.

e. Tell the true meaning of each legend you read.

You may do more than one of these if you have time.

Or, if you wish - think up something else to do with the stories. Tell me what it is. Perhaps you will be able to do it.

TUMBLEWEED TRACKERS

Use the encyclopedias - and the printed sheets - to read and learn all that you can about tumbleweeds.

Write a factual report about them. Illustrate the report.

WEEK 2 (Cont'd.)

Then, choose one of the following:

a. Write a story as if you were a tumbleweed and tell how you grew to become a Christmas tree tree.

b. Write a story as if you were a tumbleweed and tell about some other adventure you had.

c. Write a poem about a tumbleweed who became a Christmas tree.

d. Write a letter to Santa explaining why you have a tumbleweed tree.

e. Write a story as if you were a tumbleweed Christmas tree. Tell what happens as you see Santa come on Christmas Eve, the children waking, and so on.

f. Or - design your own creative writing idea but check with the teacher!

WEEK 3

Phase III Renzulli	Intensive unit on research skills, skimming, using table of contents.
Listening	"Carnival of the Animals" by Camille Saint Saens. Listened to the symphony. Researched the composer. Chose one of the animals from the music, and completed research on it.
Humanizing	Played game called "turn around," to see how perceptive students are. (Drew picture of other person, talked about feelings.)

WEEK 4

Listening Creative Drama	"Carnival of the Animals" Role-played animal parts.
Oral Reports	Based on research during week 3, discussing composer and animal of students' choice.
Mural	Committee designed a giant mural based on the "Carnival of the Animals."

WEEK 4 (Cont'd.)

Art	Learned "scale drawing" in order to complete the mural.
Humanizing	"Turn Around" with different partner.

WEEK 5

Oral Reports	Continued oral reports from week 4.
Art	Students began drawing animal of their choice and painting it for the class mural.
Research Lab	Kit of programmed instruction in research skills.
Humanizing	Discussed personal problems as a result of being in ACTion, causes and solutions.
Problem Box	A place where students could write their problems and deposit them for future discussion.

WEEK 6

Art	Completed mural from week 5.
Research Lab	Continued.
Creative Writing	Talked about characteristics of animals, made lists. Warm up activity for poetry.
Music	Listened to different orchestration of "Carnival of the Animals" by Leonard Bernstein, and compared. Completed worksheet.

THE CARNIVAL OF THE ANIMALS by Saint-Saens (Camille)

1. What are the uses of music?
2. How is Saint-Saens described?
3. What was "Carnival of the Animals" written?
4. What is interesting about the musicians on this tape?

WEEK 6 (Cont'd.)

5. How did Saint-Saens poke fun at:
   Turtles and tortoises?
   Elephants?
   Some of her acquaintances?
6. What instrument was originally used for the "Aquarium?" Why is it no longer used?
7. Who did Saint-Saens characterize in the "Pianists?"
8. How many pieces of music are "quoted" in the "Fossils?" Why were these particular pieces used?
9. What is the most famous part of this composition?
10. What animals perform in the "Finale?"

. . . from Leonard Bernstein performance.

WEEK 7

Art	Completed mural from week 6.
Research Lab	Continued.
	Out of school because of snow!

WEEK 8

Art	Completed mural from week 7
Research Lab	Continued.
Learning Center	Independent math games.
Art	Portray animal for stage production, by designing a costume on paper.
Creative Writing	Began writing dialogue for stage production in poetry form for animal of students' choice.
Think Lab	By SRA, a problem solving skills kit.

WEEK 9

Field Trip	To city library.
Field Trip	To Phillips University Library. Field librarian discussed reference materials.
Filmstrip	Use of reference library.

USING THE LIBRARY

1. What four things should you be able to find in the library to use in research?
2. What is found in a reference room or reference section?
3. What information does the card catalog give you?
4. Why are guides to current publications important in research?
5. Who is in the library to help you?
6. What are the three kinds of catalog cards?
7. What is the call number? Where is it located on catalog cards?
8. Why do fiction books have no call numbers?
9. What is the purpose of a library classification system?
10. List four things to do when you begin to use an encyclopedia.

In this library . . .

1. Where is the reference room or reference section?
2. Where is the card catalog?
3. Where are the non-fiction books?
4. Where are the records, films, filmstrips, and tapes and how do you obtain them for use in the library?
5. Where are the magazines and how do you obtain them?
6. How is the vertical file used? If there is one, where is it located?
7. What is the reference librarian's name?
8. What is the procedure for checking out and returning materials?

WEEK 9 (Cont'd.)

9. What hours are the schedule for this library to be used?

10. What kind of behavior is expected here?

WEEK 10

Evaluation	Of library field trip experience.
Creative Writing	Completed dialogue for stage production (poetry).
Art	Completed mural.
Learning Centers	Students made ordinal choice of learning centers.
	Discussion of the different centers:
	(1) The Critic's Corner - Humanities
	(2) Expression - Creative Writing
	(3) Roads Less Traveled - Reading new material
	(4) People, Places, and Things - Social Studies
	(5) Quests - Science
	(6) Figures and formations - Math
	(7) Challenges - Problem Solving and Creative Training

WEEK 10 (Cont'd.)

SAMPLING NAME_____

DAY	THE CRITIC'S CORNER	EXPRESSIONS	ROADS LESS TRAVELED	PEOPLE PLACES AND THINGS	QUESTS	FIGURES AND FORMULATIONS	CHALLENGES
1							
2							
3							
4							
5							
6							
7							

WEEK 11

Visitor — Field librarian, introducing new kinds of reference materials.

Field Trip — Cherokee Strip Museum
Objective - First hand observation and research

NAME_____ DATE_____

FIELD TRIP - MUSEUM OF THE CHOERKEE STRIP Gathering Data

Places such as museums can furnish a great deal of information for the person who is engaged in research. Much of the information might not be found in books. Learn to watch and listen . . . and remember . . . what you see on visits to such places. Compare the way things were with the way things are today.

1. Name three household items which you saw and tell what they were used for.
   a. b. c.

2. Name three items you saw which would probably have been most used by men. Tell how they were used.
   a. b. c.

3. Name three items you saw which would have been used by children. Tell how they were used.
   a. b. c.

4. Name three items you saw which had to do with animals. Tell their purpose.
   a. b. c.

5. Name three items you saw which could still be used today. How could they be used?
   a. b. c.

6. Name three items you saw which have been replaced by more modern versions of the same thing.
   a. b. c.

7. What types of transportation did you see?

8. What handcrafts did you see? Why do you think handcrafts were important to early settlers?

9. What did you enjoy most in the displays? Why?

10. Sketch and tell about the most interesting thing you saw.

WEEK 11 (Cont'd.)

11. If you could improve the museum in some way, what would you do?
12. Name six people who have donated items to the museum.
13. Do you have relatives whose names appear in the museum? Who are they?
14. Name three kinds of dwellings used by early settlers. Why didn't they build log cabins?
15. When was the Cherokee Strip opened for settlement?
16. What part of Oklahoma was included in the Cherokee Strip?
17. How did the Cherokee Strip get its name?
18. By what other names was the area known?
19. Approximately how many people made the run?
20. How many acres of land were involved in the opening?

WEEK 12

Learning Centers	Students' first choice.

Valentine's parties at regular school!

WEEK 13

Films	Two films about breakfast. Purpose - gathering information from audio-visual media, taking notes, etc.
Poetry	About breakfast.
Interest Inventory	Survey for teacher.
Research Lab	Continued.
Game	"Twenty Questions," about object in box. Purpose - listening skill builder.
Learning Centers	Finish first choice.

WEEK 14

Learning Centers	Begin second choice.
Brainstorming	Problems of extreme giftedness based on a newspaper article read by the class.
Game	"Twenty Questions"

Valentine's Party at ACTion!

WEEK 15

Filmstrip	Reference collection. Reviewed use of more difficult research materials
Worksheets	From field trip (discussed).
Learning Center	Second choice.
Research Lab	Continued.
Creative Writing	"Autopoetry" - poetry about self.
Creative Dramatics	"SCAMPER" - kit designed to increase imagination.

WEEK 16

Worksheets	Completed from field trip.
Creative Writing	Finished "autopoetry."
Interest Inventory	Completed.
Learning Centers	Continued.
Creative Dramatics	Continued "SCAMPER."

WEEK 17

Learning Centers	Third choice.
Creative Writing	Filmstrip for motivation and review of poetry elements.
Reading	"Highwayman" - applied filmstrips to poem.

WEEK 17 (Cont'd.)

Humanizing	"Feelings Games" & "Metaphore/Simile" games.
Creative Writing	Poetry worksheet - to develop awareness.
Creative Writing & Humanism	Wrote poem incorporating elements in making a strong statement about feelings.

WEEK 18

Creative Thinking	Began Purdue Creative Thinking Program.
Learning Centers	Continued.
Research Lab	Continued.
Game	"Chain gang" - word game (verbal fluency)
Field Trip	Began plans for field trip to Oklahoma Museum of Art.

WEEK 19

Field Trip	To "Willow's Tree" - needlework shop
Art	Began needlework project (each student made a needlework bookmark.

NAME_____ DATE_____

"SEW WHAT . . . an experience based upon needlework as an art form."

Pre-Experience Inventory

1. Name at least five different types of needlework.
2. Explain the difference between petit point and gros point.
3. The continental and the half-cross are names of stitches found in what type of needlework?
4. The garter, the stockinette, and the rib are examples of patterns found in what type of needlework?
5. Slipped stitch, run, purl, and weft are terms found in what type of needlework?

WEEK 19 (Cont'd.)

6. Cording stitch, couch stitch, French knot, and cross stitch are a few of the many stitches found in what type of needlework?

7. What type of needlework reached its highest development during the Middle Ages when it was used on linens, priests' robes, wall hangings, and clothing?

8. What kind of needlework was found on a sampler in Colonial America? What was the purpose of a "sampler?"

9. What kinds of needlework use a "hook" instead of a needle?

10. The rose, the shell, the popcorn, and the chain are patterns of stitches found in what type of needlework?

11. Name five materials from which needles for needlework of various types might be made.

12. What kind of needlework is used to make very expensive handmade lace in Belgium, Italy, Ireland and other European countries?

13. Piecing and applique are two common methods of design found in what type of needlework?

14. Name at least four different types of fibers found in needlework yarns.

15. Name at least five characteristics a person should have who wishes to become proficient in needlework.

CREATIVITY TRAINING

Form I. Choose one of the following - circle the letter of your choice.

a. List as many different things as you can where needlework of any type might be used as a decoration, such as on a shirt.

b. List as many different places as you can where you might work on a needlework project, such as in a needlework shop.

c. List as many things as you can think of that would fit into a needlework basket such as the ones we saw today, like a pair of scissors.

d. List as many things as you can think of that might be used in a needlework design for the emblem or insignia of a school, such as a pencil.

WEEK 19 (Cont'd.)

e. List as many different things as you can think of that you could do with a piece of needlework, such as hang it on the wall.

FORM II. Choose one of the following - circle the letter of your choice.

a. List as many things as you can think of that are long and thin, like a needle.

b. List as many things as you can think of that are colorful and pliable, such as yarn.

c. List as many things as you can think of that are made of some kind of metal and have moving parts, such as a pair of scissors.

d. List as many things as you can think of that are useful as well as decorative, such as a hooked rug.

e. List as many things as you can think of that are made of metal and are no larger than a thimble - like a thimble.

FORM III. Choose one of the following - circle the letter of your choice.

a. List as many different reasons as you can think of why a person might be interested in doing needlework, such as for a hobby.

b. List as many different things as you can think of that you could use in the manner of a needle, but instead of a needle, such as a stick with a hole in it.

c. List as many reasons as you can think of why you might want to give someone a piece of needlework, for instance as a birthday gift.

d. List as many reasons as you can think of that many people think of needlework with positive feelings, such as because it's pretty.

e. List as many different reasons as you can think of why someone might want to work in a needlework shop, such as to make money.

FORM IV. Choose one of the following - circle the letter of your choice.

a. You are a needle living in a dark sewing basket. List as many things as you can that you might think or say as you lie there - imaginining, of course, that you could talk and think! Example: "It's surely dark in here!"

WEEK 19 (Cont'd.)

b. You are a wall hanging decorating someone's dining room. List as many things as you can that you might think to yourself as you hang there day after day, such as "I would like to run away."

c. List all the unusual ways you can think of that you would change this shop.

d. List all the things that you can that a person might think or say who has just received a beautiful piece of needlework as a gift.

Post-Experience Inventory

1. Name at least five different types of needlework.

2. Explain the difference between petit point and gros point.

3. What type of needlework reached its highest development during the Middle Ages when it was used on linens, priests' robes, wall hangings, and clothing?

4. What kind of needlework was found on a sampler in Colonial America? What was the purpose of a sampler?

5. Name five materials from which needles for needlework of various types might be made.

6. What kind of needlework is used to make very expensive handmade lace in Belgium, Italy, Ireland and other European countries?

7. Name at least four different fibers found in needlework yarns.

8. Name at least five characteristics a person should have who wished to become proficient in needlework.

9. Write the name of the appropriate type of needlework beside the terms:

Continental_____	Stockinette_____
Garter_____	Purl_____
French Knot_____	Cording Stitch_____
Hook_____	Shell_____
Popcorn_____	Rib_____
Piecing_____	Slipped Stitch_____

WEEK 19 (Cont'd.)

Applique_____	Run_____
Shell_____	Weft_____
Rose_____	Half-cross_____
Cross Stitch_____	

WEEK 20

Evaluation	Post-test on field trip.
Creativity Exercises	From Creativity Packet.
Creative Writing	Thank you note (quilt) to "Willow's Tree."
Films	"What is Art?" "What is Color?"
Art	Teacher demonstrates method, class duplicates method. (Watercolor, oil painting)
Visiting Artists	Jim Bray - Watercolorist Gloria Webb - Oil Colorist

WEEK 21

Workshop	Teacher attended workshop in Oklahoma City.
Art	Students finished incomplete work.
Visiting Artists	Eldon Ames - Perspective Drawing Ray Munkres - Wood Sculptor
Concert	ACTion class went to Phillips University Symphony to hear their dialogue performed.

WEEK 22

Tests	ACTion classes were administered the Wide Range Achievement Test, Intellectual Achievement Responsibility Scale, Gates-MacGinitie Reading Test, and Torrance Tests of Creative Thinking.
Research	Statistical research, including random sampling, mean, median and mode.

WEEK 22 (Cont'd.)

Visiting Artists	Paladin Roy - Indian Artist

WEEK 23

Field Trip	Oklahoma Museum of Art, "Indian Art Exhibit" (Saturday).
Reading	Students chose one of six books to read dealing with people coping with handicaps.
Discussion	American Institute of Discussion (A.I.D.) technique, dealing with the books on handicapping conditions.

WEEK 24

Field Trip	Phillips University Gallery of Art - Exhibition of American woven coverlets.
Worksheets	About American woven coverlets.
Visiting Artist	Marilyn Fulton - Murals.

WEEK 25

ACTion art exhibit for Enid schools.

Open house for parents.

AWARDS

May, 1978	Seven state awards from the Oklahoma Poetry Society (only 40 awards given in the state)
September, 1978	Three ribbons at Garfield County Fair for art.

APPENDIX C

EVALUATION OF CLASS EXPERIENCE

BY ACTion STUDENTS

EVALUATION OF CLASS EXPERIENCE

Date_____

Day_____

Today we_____

_____

_____

My favorite thing was_____

_____because_____

_____

The thing I liked least was_____

_____because_____

_____

Today I learned_____

_____

_____

Things I need to think about for our next class are_____

_____

_____

Other comments:

On a scale of 1 to 10, I would rate today's class experience:

1 2 3 4 5 6 7 8 9 10

APPENDIX D

ACTion PROGRAM REFERRAL - TEACHER FORM A

ACTion PROGRAM REFERRAL - TEACHER FORM A

Teacher_____ Grade(s) Taught_____

School_____ Date_____

This form completed for school year_____

Directions: Fill the blank with the name of the student who comes quickly to mind as displaying the characteristic mentioned. Space is provided for one name. However, if others seem appropriate they may be added. Names may be repeated.

At the end of each section, indicate the name of the student most frequently mentioned.

Learns very quickly with little drill_____

Is an excellent reader_____

Is outstanding in mathematics_____

Is curious; asks many questions_____

Uses a large spoken and written vocabulary_____

Dislikes "busy work"_____

Remembers factual information easily_____

Reads independently for pleasure and information_____

Is keenly observant and aware_____

Enjoys using reference materials_____

Likes to do special projects_____

Most Frequent Name_____

With motivation, is able to set own goals_____

Sets high standards for own performance_____

Asserts self and is constructively aggressive_____

Is concerned with questions of value - good/ bad, right/wrong _____

TEACHER FORM A (Cont'd.)

Likes to bring order and structure to things and situations _____

Is persistent in completing tasks _____

Prefers to work independently _____

Is interested in "adult" problems _____

Becomes absorbed and involved in certain topics _____

Is easily bored with routine _____

Most Frequent Name _____

Uses an art form (music, drama, art, speech) to express feelings _____

Uses descriptive words, phrases in writing _____

Has good mechanical skills _____

Expresses opinions openly _____

Has a keen sense of humor _____

Is inventive _____

Enjoys drama and characterization _____

Displays ability in art _____

Enjoys creative writing _____

Is sensitive to beauty _____

Is imaginative; fantasizes _____

Is adventurous; takes risks _____

Questions adult view of things _____

Most Frequent Name _____

Behaves responsibly _____

Tends to dominate others _____

Is sought by others for opinions and assistance _____

Can take charge of a group _____

Is able to express self, communicate with others _____

Is self-confident with peer group _____

Is self-confident with adults _____

Is liked, respected by peer group _____

Most Frequent Name _____

TEACHER FORM A (Cont'd.)

Is cooperative_____

Uses common sense_____

Participates in social activities_____

Is flexible; adapts to new situations_____

Enjoys company of others_____

Exhibits good health_____

Is highly energetic_____

Has good gross motor control_____

Has good fine motor control_____

Has good attendance record_____

Is well coordinated_____

Enjoys athletic games and physical activity_____

Most Frequent Name_____

APPENDIX E

ACTion PROGRAM - TEACHER REFERRAL FORM B

ACTion PROGRAM - TEACHER REFERRAL FORM B

CODE NO._____

Teacher's Name_____School_____Grade_____

Name of Student_____

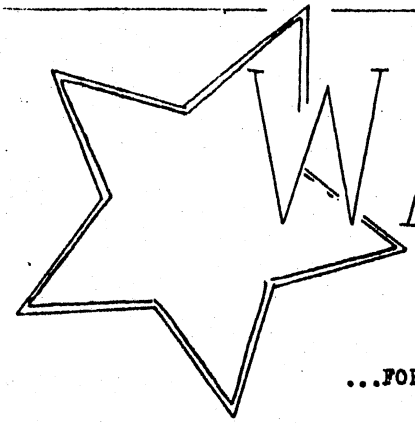
School_____ Present Grade_____

ACTion Program - Teacher Referral Form B CODE NO._____

Using as much space as you wish, elaborate upon the reasons why you feel that this student would benefit from the program. DO NOT USE NAMES.

APPENDIX F

LETTER TO PARENTS FOR NOMINATIONS OF STUDENTS FOR ACTion PROGRAM



WANTED

STUDENTS

4th, 5th, and 6th Grades

...FOR ENID'S NEW ACTion*PROGRAM OF EDUCATIONAL ENRICHMENT

DESCRIPTION: We are looking for students who:

- Learn quickly and easily with little drill or repetition
- Handle classroom requirements with little effort
- Enjoy creative thinking and creative activities--writing, art, music, crafts, reading, drama, discussion, debate, research, etc.
- Have a record of high achievement
- Would benefit from studies and activities outside of and in addition to the regular classroom
- Need a challenge
- Are curious and eager to grow intellectually
- Have shown interest and ability in leadership

REWARD: Educational Enrichment Classes--Studies and activities to encourage creative thinking and intellectual development--Opportunities for growth.

CONTACT: If you HAVE--or KNOW--a child who could benefit from such a program and who might be interested in participating, please complete the form below and return it to your child's teacher within the next day or two.

Thank you!

ACTion Program Staff

---

*ACTion classes will be planned for and limited to the special needs of academically and creatively talented students. Sessions will be held on a regular basis in a central location. Parents will need to arrange transportation for students who attend.

Name of child _____ Grade: (Circle One: 4 5 6

School child is attending _____

Name of child's parent(s) _____

_____
Signature of person submitting this name

_____
School

APPENDIX G

ACTion PROGRAM - TEACHER EVALUATION

ACTion PROGRAM - TEACHER EVALUATION

Dear Teacher,

We need your help! This form has been designed to obtain a further evaluation of the academic and creative abilities of certain students in your class. Your opinions and observations will be very valuable to us as we approach a final selection of those who will participate in ACTion.

Although completion of the form may seem to be time-consuming to some, we feel that it is time well spent in an exhaustive search for those students who can benefit from the program.

Thank you - in advance - for your assistance.

Sincerely,

Carol W. McMillan

DIRECTIONS: Consider each item carefully and separately.

Mark a response to reflect the degree to which you have observed each characteristic.

Use a ✓ or an X in the appropriate column.

Scale: 1 - The characteristic is absent or seldom present.

2 - The characteristic is present to a slight degree.

3 - The characteristic is present to a moderate degree.

4 - The characteristic is present to a considerable degree.

STUDENT_____ SCHOOL YEAR_____

SCHOOL_____ GRADE_____

TEACHER'S SIGNATURE _____

CODE NO._____

TEACHER EVALUATION (Cont'd.)

CODE NO._____	1	2	3	4
Learns and retains with speed, depth, and a minimum of rote memory or drill; meets normal classroom standards easily.	___	___	___	___
Exhibits a superior mastery of reading and vocabulary skills.	___	___	___	___
Exhibits a superior mastery of mathematics skills.	___	___	___	___
Exhibits oral expression advanced for age/grade level.	___	___	___	___
Is independent, self-assertive, self-motivated.	___	___	___	___
Enjoys the use and application of reference materials.	___	___	___	___
Is intellectually curious; asks penetrating, provocative, searching questions.	___	___	___	___
Has long attention span; is able to sustain interest and become absorbed in certain topics.	___	___	___	___
Is imaginative; exhibits originality in ideas and/or products.	___	___	___	___
Possesses a storehouse of information about a wide variety of interests	___	___	___	___
Enjoys the reading act and reads independently for both pleasure and information	___	___	___	___
Is not easily satisfied with own performance; tends to be self-evaluative and self-critical of own ideas and products.	___	___	___	___
Is concerned with values of right/wrong, good/bad, justice/injustice, etc.	___	___	___	___
Is persistent in the completion of long-range tasks.	___	___	___	___
Displays keen sense of humor; sees humor in situations which may not appear humorous to others.	___	___	___	___
Is sensitive to beauty, the aesthetic qualities of things.	___	___	___	___
Displays ability and originality in some form of artistic expression (music, art, speech, drama, creative writing, dance).	___	___	___	___

TEACHER EVALUATION (Cont'd.)

	1	2	3	4
Assumes and carries out responsibilities.	___	___	___	___
Is able to take charge of group, direct activities.	___	___	___	___
Maintains good peer relationships.	___	___	___	___
Uses common sense as well as practical knowledge.	___	___	___	___
Is energetic; enjoys physical games, activities.	___	___	___	___
Exhibits general characteristics of good health.	___	___	___	___
Has record of good school attendance.	___	___	___	___

ACTion Program - Teacher Evaluation - Part II.

Respond to any or all of the following questions which you feel are pertinent to this child and relevant to our consideration of his or her selection for the program. You may respond to as few as one or as many as eight. Use a few brief, specific statements.

Use this sheet for responses. PLEASE AVOID THE USE OF NAMES. Remember, the final selection of these students will be made anonymously. Bear in mind that the more information we have, the more accurate our selection can be.

1. How does this child seem to learn most effectively in the classroom? What are his work habits?

2. To what extent does the child do things "on his own?" In what specific ways does the child display independence in learning?

3. How and to what degree does the child use an art form (music, art, speech, drama, creative writing, dance) to express feelings?

4. Why do you consider this child a leader?

5. What personal or social traits are present that will benefit the student in life experiences?

6. What attitudes are displayed by the child which aid him in the school experience?

7. Are there any characteristics of health or physical stamina or physical ability which benefit or hinder the student in some way?

TEACHER EVALUATION (Cont'd.)

8. How would you rate this student's potential for success or failure as a participant in the ACTion Program?

APPENDIX H

SCHOOL SENTIMENT INDEX

SCHOOL SENTIMENT INDEX

Intermediate Level

Directions: On your answer sheet please show whether each of these sentences is true or untrue for you by marking A (true) if the sentence is true or B (untrue) if it is not true.

For example:

1.	A True	B Untrue	1. My class is too easy.
2.	True	Untrue	2. I'd like to stay at my school always.

There are no right or wrong answers, so respond to each item as honestly as you can. Do not write your name on your answer sheet.

1. Other children bother me when I'm trying to do my school work.
2. My teacher always tries to tell me when she is pleased with my work.
3. My teacher is interested in the things I do outside of school.
4. Each morning I look forward to coming to school.
5. This school has rules like a jail.
6. In my class, my teacher allows us to make many decisions together.
7. My teacher grades too hard.
8. Other children often get me into trouble at school.
9. My teacher doesn't explain things very well.
10. My teacher listens to what I have to say.
11. It is hard for me to stay happy at school because I wish I could be somewhere else.

SCHOOL SENTIMENT INDEX (Cont'd.)

12. There are many different activities at school from which I can choose what I would like to do.

13. When I do something wrong at school, I know I will get a second chance.

14. My teacher gives me work that's too easy because she's lazy.

15. I often must do what my friends want me to do.

16. My teacher tries to make school interesting to me.

17. Most school days seem like they will never end.

18. My teacher does not care about me.

19. I don't like having to go to school.

20. The grown-ups at my school are friendly.

21. My teacher gives me as many chances as other children to do special jobs in my classroom.

22. The other children in my class are not friendly toward me.

23. My teacher tries very hard to help me understand hard schoolwork.

24. I like to do my homework.

25. My teacher doesn't understand me.

26. I often wish I was somebody who doesn't have to go to school.

27. This school has events all the time that make me happy I attend school here.

28. My teacher treats me fairly.

29. My teacher tries to make sure I understand what she wants me to do.

30. I really like working with the other children in my class.

31. I'm afraid to tell my teacher when I don't understand something.

32. I feel good when I'm at school because it's fun.

33. I get scared when I have to go to the office at school.

34. My teacher unfairly punishes the whole class.

35. My teacher doesn't give very good tests.

SCHOOL SENTIMENT INDEX (Cont'd.)

36. School is a good place for making friends.

37. My teacher tries to do things that the class enjoys.

38. I like trying to work difficult puzzles.

39. I'm scared of my teacher because she can be mean to us.

40. I like to stay home from school.

41. When I have a problem on the playground at recess, I know I can find someone to help me.

42. I don't like most of the children in my class.

43. My teacher is not very friendly with the children.

44. The biggest reason I come to school is to learn.

45. My school looks nice.

46. My teacher grades me fairly.

47. I think a new child could make friends easily in my class.

48. I feel like my teacher doesn't like me when I do something wrong.

49. My class is too crowded.

50. When a new child comes into our class, my friends and I try very hard to make him or her feel happy.

51. My teacher likes some children better than others.

52. I feel unhappy if I don't learn something new in school each day.

53. When I do something wrong, my teacher corrects me without hurting my feelings.

54. I like school because there are so many fun things to do.

55. My school doesn't have very many supplies for us to use.

56. My teacher would let the class plan an event alone.

57. My teacher is often too busy to help me when I need help.

58. It would be nice if I never had to come back to school again after today.

SCHOOL SENTIMENT INDEX (Cont'd.)

59. My teacher doesn't want to hear the children's ideas on classroom rules and behavior.

60. My teacher usually explains things too slowly.

61. Older children often boss my friends and me around at my school.

62. I don't think there is very much to do at this school.

63. My teacher bosses the children around.

64. My teacher gets angry if the class isn't quiet.

65. My teacher usually doesn't know what to do in class.

66. I like my teacher because he (she) is understanding when things go wrong.

67. If I had a problem outside of school I could go to my teacher for help.

68. My teacher cares about the feelings of the pupils in his (her) class.

69. My teacher doesn't care what happens to me outside of school.

70. My teacher is usually grouchy in class.

71. I have my own group of friends at school.

72. I like to work with other children on class projects.

73. Learning new things is not very much fun.

74. When my schoolwork is hard I don't feel like doing it.

75. I don't do very much reading on my own.

76. Almost everything I learn in school is dull.

77. I don't care what scores I get on my schoolwork.

78. I would rather do almost anything else than study.

79. I'm very happy when I'm at school.

80. School is exciting.

81. I don't like school because it's too much work.

APPENDIX I

THE IAR SCALE

THE IAR SCALE

1. If a teacher passes you to the next grade, would it probably be
   a. because she liked you, or
   b. because of the work you did?

2. When you do well on a test at school, is it more likely to be
   a. because you studied for it, or
   b. because the test was especially easy?

3. When you have trouble understanding something in school, is it usually
   a. because the story wasn't well written, or
   b. because you weren't interested in the story?

4. Suppose your parents say you are doing well in school. Is this likely to happen
   a. because your work is good, or
   b. because they are in a good mood?

5. Suppose you did better than usual in a subject at school. Would it probably happen
   a. because you tried harder, or
   b. because someone helped you?

6. When you lose at a game of cards or checkers, does it usually happen
   a. because the other player is good at the game, or
   b. because you don't play well?

7. Suppose a person doesn't think you are very bright or clever.
   a. Can you make him change his mind if you try to, or
   b. are there some people who will think you're not very bright no matter what you do?

8. If you solve a puzzle quickly, is it
   a. because it wasn't a very hard puzzle, or
   b. because you worked on it carefully?

9. If a boy or girl tells you that you are dumb, is it more likely that they say that
   a. because they are mad at you, or
   b. because what you did really wasn't very bright?

10. Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen
    a. because you didn't work hard enough, or
    b. because you needed some help, and other people didn't give it to you?

THE IAR SCALE (Cont'd.)

11. When you learn something quickly in school, is it usually
    a. because you paid close attention, or
    b. because the teacher explained it clearly?

12. If a teacher says to you, "Your work is fine," is it
    a. something teachers usually say to encourage pupils, or
    b. because you did a good job?

13. When you find it hard to work arithmetic or math problems at school, is it
    a. because you didn't study well enough before you tried them, or
    b. because the teacher gave problems that were too hard?

14. When you forget something you heard in class, is it
    a. because the teacher didn't explain it very well, or
    b. because you didn't try very hard to remember?

15. Suppose you weren't sure about the answer to a question your teacher asked you, but your answer turned out to be right. Is it likely to happen
    a. because she wasn't as particular as usual, or
    b. because you gave the best answer you could think of?

16. When you read a story and remember most of it, is it usually
    a. because you were interested in the story, or
    b. because the story was well written?

17. If your parents tell you you're acting silly and not thinking clearly, is it more likely to be
    a. because of something you did, or
    b. because they happen to be feeling cranky?

18. When you don't do well on a test at school, is it
    a. because the test was especially hard, or
    b. because you didn't study for it?

19. When you win at a game of cards or checkers, does it happen
    a. because you play real well, or
    b. because the other person doesn't play well?

20. If people think you're bright or clever, is it
    a. because they happen to like you, or
    b. because you usually act that way.

21. If a teacher didn't pass you to the next grade, would it probably be
    a. because she "had it in for you," or
    b. because your schoolwork wasn't good enough?

THE IAR SCALE (Cont'd.)

22. Suppose you don't do as well as usual in a subject at school. Would this probably happen
    a. because you weren't as careful as usual, or
    b. because somebody bothered you and kept you from working?

23. If a boy or girl tells you that you are bright, is it usually
    a. because you thought up a good idea, or
    b. because they like you?

24. Suppose you became a famous teacher, scientist or doctor. Do you think this would happen
    a. because other people helped you when you needed it, or
    b. because you worked very hard?

25. Suppose your parents say you aren't doing well in your schoolwork. Is this likely to happen more
    a. because your work isn't very good, or
    b. because they are feeling cranky?

26. Suppose you are showing a friend how to play a game and he has trouble with it. Would that happen
    a. because he wasn't able to understand how to play, or
    b. because you couldn't explain it well?

27. When you find it easy to work arithmetic or math problems at school, is it usually
    a. because the teacher gave you especially easy problems, or
    b. because you studied your book well before you tried them?

28. When you remember something you heard in class, is it usually
    a. because you tried hard to remember, or
    b. because the teacher explained it well?

29. If you can't work a puzzle, is it more likely to happen
    a. because you are not especially good at working puzzles, or
    b. because the instructions weren't written clearly enough?

30. If your parents tell you that you are bright or clever, is it more likely
    a. because they are feeling good, or
    b. because of something you did?

31. Suppose you are explaining how to play a game to a friend and he learns quickly. Would that happen more often
    a. because you explained it well, or
    b. because he was able to understand it?

THE IAR SCALE (Cont'd.)

32. Suppose you're not sure about the answer to a question your teacher asks you and the answer you give turns out to be wrong. Is it likely to happen
    a. because she was more particular than usual, or
    b. because you answered too quickly?

33. If a teacher says to you, "Try to do better," would it be
    a. because this is something she might say to get pupils to try harder, or
    b. because your work wasn't as good as usual?

VITA[2]

Arthur Warren Pliner

Candidate for the Degree of

Master of Science

Thesis: AN EVALUATIVE STUDY OF THE ENID ACADEMICALLY AND CREATIVELY TALENTED (ACTion) PROGRAM

Major Field: Educational Psychology

Biographical:

Personal Data: Born in Philadelphia, Pennsylvania, March 3, 1953, the son of Mr. and Mrs. Nathan E. Pliner.

Education: Graduated from Cheltenham High School, Wyncote, Pennsylvania, in May 1970; received Bachelor of Science in Psychology from Oklahoma State University in 1974; complete requirements for Master of Science degree at Oklahoma State University in July, 1979.

Professional Experience: Educational Consultant, Enid Public Schools, Enid, Oklahoma, 1976-1979.