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**A study of the correlation of theatrically gifted students, creativity and intelligence.**

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A STUDY OF THE CORRELATION OF THEATRICALY GIFTED STUDENTS,  
CREATIVITY AND INTELLIGENCE

A Thesis  
Presented to the  
Department of Teacher Education  
and the  
Faculty of the Graduate College  
University of Nebraska

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
University of Nebraska at Omaha

by  
Cathy Christensen

August, 1988

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THESIS ACCEPTANCE

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Committee

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## TABLE OF CONTENTS

Chapter		Page
1	Introduction . . . . .	1
2	Review of Related Research . . . . .	8
3	Design of the Study . . . . .	18
4	Presentation of the Findings . . . . .	21
5	Summary and Conclusions . . . . .	29
	BIBLIOGRAPHY . . . . .	33

## LIST OF TABLES

Tables		Page
1	Sample Distribution . . . . .	19
2	Comparison of Theatrical Giftedness and the California Achievement Test . . . . .	23
3	Comparison of Theatrical Giftedness and the Torrance Test of Creativity . . . . .	24

## LIST OF FIGURES

Figures	Page
1 Correlation of Theatrical Giftedness and Intelligence . . . .	37
2 Correlation of Theatrical Giftedness and Creativity . . . . .	28

## CHAPTER 1

### Introduction

A student gifted in the theater arts does not find it easy to be "an actor." Talent is a small part of the many factors necessary to go on the stage. The student needs a great deal of self-confidence and poise to go through lengthy and frequent auditions. No matter what age the student is, it is necessary to have vocal projection for great distances, clear diction, and the ability to show a spectrum of emotions. After going through the audition process, the chosen child needs an excellent memory, not only for his/her own part, but for his/her location on stage and within the script.

Since a child active in the theater has these various talents that are also found to be necessary in the classroom, the purpose of this study is to determine the correlation between theatrically gifted students and their norm-referenced intelligence test scores, and the correlation between the theatrically gifted students and their scores on a standardized creativity test.

#### Statement of the Problem

Is there a significant relationship between theatrically gifted elementary and junior high students and their norm-referenced achievement test scores, and a significant relationship between these theatrically gifted students and their scores on a standardized creativity test?



Subproblem One. Is there a significant relationship between theatrically gifted elementary and junior high students and their norm-referenced achievement test scores?

Subproblem Two. Is there a significant relationship between theatrically gifted students and their scores on a standardized creativity test?

#### Hypotheses to be Tested

There is no significant correlation between the rank order of theatrically gifted elementary and junior high students, and their rank orders on a norm-referenced intelligence test, and their rank order on a creativity test.

Subhypothesis One. There is no significant correlation between the norm-referenced intelligence test scores of elementary and junior high students and their giftedness in the performing arts.

Subhypothesis Two. There is no significant correlation between the creativity test scores of these students and their giftedness in the performing arts.

#### Significance of the Study

This study compares theatrically gifted students, their norm-referenced California Achievement Test scores, and their scores on the Torrance Test of Creativity. The comparison will determine a correlation among the three domains. The possibility then exists for teachers and theater directors working together to stimulate, encourage, and broaden the knowledge base of the gifted students in the theater and

the classroom. This study, therefore, has significance for the classroom teacher, the director of theater who works with children, and to parents of gifted students.

The classroom teacher can benefit from the knowledge of this study. With the onset of school and the preoccupation of rules and conventions, the students' environment must assume a more active role in the development of creativity (Gardner, 1982). The elementary school teacher reaches the child before all the strictures of acceptable social behavior become instinctive. The teacher has, in this stage in the students' lives, the ability to develop the "curiosity and imagination that appear to form the child's ability to think effectively later on in life" (Young, 1970). "The possibility of early identification of creative talent is increasing. Such identification is relevant to the broad national needs and to the interest of higher education in selecting students for honor's programs" (Guilford, 1968).

Wallach (1965) states:

There is little doubt that creativity and intelligence have implications for behavior in the school environment. Those high in both creativity and intelligence show the least doubt and hesitation of all groups, show the highest level of self-confidence and display the least tendency toward deprecation of one-self and one's work. [They] are sought out by their peers more eagerly than are any other group, and this high intelligence/high creativity group also seeks the companionship of

others more actively than does any other group. With regard to achievement, this group shows the highest levels of attention span and concentration. (p. 239)

Several verbal and non-verbal processes found in theatrically gifted children appear to be necessary ingredients in intellectually and creatively gifted students. These characteristics of a good actor, such as memory, attitude, self-esteem and self-confidence, Horowitz and O'Brien (1985) attributed to Terman and Oden's research as necessary in gifted children. These characteristics also lead to talented accomplishments in adulthood (Horowitz and O'Brien, 1985).

A recent study shows 63.9% of American high schools do not offer a program in theater arts. Of the remaining 36.1%, most offer classes only in dramatic literature, not in dramatic arts (Pickering, 1975). Although traditional drama is nearly nonexistent in elementary schools, Pickering also suggests that some form of dramatic activity currently exists in almost every aspect of the elementary classroom. Conversely, a New Haven pilot program inculcating theater into the classroom discovered a group of exceptionally gifted students whose abilities had not been perceived in the classroom. "This confirmed in practice the usefulness of theater techniques for the developmental identification of giftedness" (Niro and Wolf, 1982, p. 239). The cooperative effort of the theatrical director and the classroom teacher can be of great benefit to both. This cooperation may also determine the early identification of students gifted in other areas, and in the enhancement

of all curricular, social and artistic development fields in the theater and the classroom.

Theater directors also have an interest in this study. Outside the theater, "no other activity demands greater self-control, the ability to accept criticism [and] get along with others. You must be prompt, dependable and helpful" (Ommanney, 1982, p. 176). The superior qualifications found in gifted students lend themselves to above average ability within the confines of the theater. Identification within the school could be of benefit to identification within the theatrical domain.

Parents also have an interest in this study. "Curiosity and imagination appear to form the basis of the child's ability to think effectively later on in life" (Young, 1970). Early recognition of giftedness could allow the parents to help guide their student towards those classes that could be of great benefit to their particular talents or ability in a specific subject area. Family members with personal involvement in the child's field of interest can lend strong support as well as encouragement and rewards for developing the student's talent (Alvino, 1985).

This project, therefore, has implications for gifted students, their classroom teachers, theater directors, and their families.

#### Assumptions

There are five assumptions related to this study.

Assumption 1. The theatrical director was unbiased in assigning the students to their rank order.

Assumption 2. Selection by a theatrical director for a part in a play assumes theatrical giftedness.

Assumption 3. The norm referenced test administered to the students is a true representative of their intelligence.

Assumption 4. There is no socioeconomic bias with theatrically gifted students.

Assumption 5. The creativity test administered to the students is an accurate representation of their creative ability.

### Limitations

There are five limitations related to this study.

Limitation 1. The students chosen for the study were those selected by the theatrical director at the Omaha Community Playhouse.

Limitation 2. Only students kindergarten through eighth grade were used.

Limitation 3. All students chosen by the theatrical director have been in a minimum of two plays.

Limitation 4. The norm referenced test scores used for this study will include the total battery score only.

Limitation 5. The creativity test will determine creative ability only, not artistic talent.

Definition of Terms

Theatrically gifted. A student who is selected by a theatrical director to participate in two or more theatrical productions is felt to be gifted in the theater.

Norm Referenced Test. Intelligence test showing performance as related to others, rather than mastery of specific objectives.

Intelligence. Standardized percentile in specific academic areas as determined by their norm referenced test score.

Creativity. The ability for original production through one's own thought or imagination.

## CHAPTER 2

### Review of Related Research

#### Introduction

Within the last thirty years the correlation of theatrically gifted students, creativity and intelligence has come under the interest and domain of children's theater directors. The purposes of Chapter 2 are:

1. To delineate the definitions of gifted children, creativity and intelligence.
2. To discuss the characteristics of gifted students.
3. To establish how creatively, intellectually and theatrically gifted students are identified.
4. To examine how communication and correlation between theater directors benefit the development of gifted students.

#### Definitions

This section discusses the definitions of giftedness. Experts have defined giftedness by using three criteria: intelligence quotients, task commitment, and specific inborn talent.

Many intelligence quotients have been cited as necessary for giftedness. Guilford (1967) states that although a high intelligence level does not guarantee creativity, an above average intelligence is almost a necessity. Wallach (1965) cites a 1962 study by Cline, Richards and Abe in which all seven of the indicated creativity measures

for the boys, such as memory, verbalization and intelligence, were significantly correlated with intelligence at the .05 level. Five of the seven indicators for the girls were correlated at or above the .05 level.

In other studies, measures of creativity are typically found to have low but positive correlations with conventional measures of intelligence (McCandless, 1977). Getzel and Jackson's (1962) study, and Smith's (1965) study indicate that an intelligence quotient of 120 is the lowest possible score that allows for the "synthesis of all thought processes necessary for 'rational' creative production." McCandless (1977) discovered that intelligence stopped being an effective correlate with performance after intelligence levels of 120 to 130. He concludes that creativity and originality account for superior achievement beyond those levels. McNemar's (1964) research correlates intelligence with artistic ability, finding a positive relationship between intelligence and creativity, but noted that it tended to vanish in the upper reaches of intelligence. Simonton's (1984) found the average intelligence quotient for "creators" in several disciplines to be nearly 140.

A second means of defining giftedness is the students' task commitment. Renzuli and Barbe's (1981) "Three Ring Conception," shows, in addition to high intelligence quotients discussed above, the criteria of task commitment on the part of the student. Alvino (1985) also cites Dorhout's insistence that the students' attitudes should be given equal weight with aptitude and intellectual achievement when selecting



students for the arts. The attitude of the student towards the task at hand will determine the success of the project.

Gardner (1982) maintains:

One bent on achieving artistic greatness must harbor a heightened motivation to excel, to distinguish himself. Possessed of a powerful vision, he must feel compelled to express that vision over and over again, within the symbolic medium of his choice. He must be willing to live with uncertainty, to risk failure and opprobrium, to return time and again to his project until he satisfies his own exacting standards. (p. 347)

In addition to intelligence quotients and task commitment as a means of defining giftedness, a third factor is the child's inborn specific talent. Feldman (1982, p. 37) defines giftedness in terms of "a person's [native] potential for contributing strongly to any specific field of accomplishment that is valid." Gardner (1982) states that an important factor for ultimate artistic achievement is this "inborn" talent. Young (1970) observes that creativity is a capacity possessed, to some extent, by all children. This ability, then, only needs exact direction to develop above average students.

Research, therefore, has found three means of defining giftedness in children. The first is through their intelligence quotient, the second through their commitment to the task, and the third means through specific inborn talent.

### Characteristics of Gifted Students

Giftedness is becoming more domain specific than was first defined and psychologically different for such areas as math, writing, leadership, and the arts. This section discusses the characteristics of gifted students.

The criteria used to describe characteristics of gifted students are varied but succinctly listed by several authors. Clark's (1979) characteristics of creative individuals include being independent, adventurous, excellent in memory skills, with the ability to show good attention to detail, and needing recognition. Pickering (1975) maintains that the necessity to imitate or impersonate is buried deep within man's nature, a part of his genetic make-up. Creative children are often said to be highly self-confident, intellectually curious, sensitive, and to have a strong sense of humor.

Guilford (1968) asserts that:

It was believed that the creative person is capable of unusual abilities to think fluently; he is able to call forth from his memory storage items of information for use in some indirect or unusual way. He is also a flexible thinker, he is pliable, changeable, and not habit-bound. (p. 419)

Young's (1970) research indicates that creativity depends upon a large number of individual actions that apparently combine in a variety of ways. These include flexibility, productivity, visualization, judgment, and sensitivity.

Thus a review of the literature for characteristics of gifted students finds several lists of terms. Characteristics such as independence, intellectual curiosity, sensitivity, and good recall are desirable theatrical and classroom traits for exceptional children.

#### Identification of Gifted Students

Many programs exist throughout the country for artistically talented students, but there is little consensus about identification of such students. There are no standardized criteria, tests or guidelines for identifying talented students; thus, a wide variety of techniques are used including observation, intelligence tests, and creativity tests.

The discussion of observation as a means for identification of gifted students may be found in several sources. According to *Gifted Children Monthly* (June, 1986), persons who have been designated as gifted by society at large usually earn this recognition based on the observation of the originality of their contributions. Frequently, this giftedness emerges outside of formal education. Torrance's (1979) findings indicate that observation of students in a setting allowing for the expression of creativity is a far more effective tool for the identification than traditional testing. Nero and Wolf (1982) further states that a "key concept in the developmental identification of students with potential talent is that the [observable] activities of the theater . . . are part of the process" (p. 392). Nero and Wolf summarize the importance of observation in the theater when they state

"The performing arts can be seen as a way to investigate giftedness since the whole individual is called on to exercise a total absorption in the task . . . and to solve problems using all of the individual's resources" (p. 138).

Although Torrance's (1975) findings indicate that observation of students is an effective tool for identification of the gifted, Wallach (1975) does maintain that creativity ratings within the school context are next to worthless, since the judgment of the raters could be highly "idiosyncratic," and probably reflect behaviors and relationships with very little in common to the creativity domain that the investigation purport to measure.

A 1972 report to the United States Congress, "Education of the Gifted and Talented," further establishes observation of the student as a means of identification. The government's definition of giftedness states "gifted and talented children are those identified by professionally qualified persons" through observation as well as other traditional means.

One of these traditional means of identification, in addition to observation, is intelligence testing. Simonton's (1984) research quotes R. W. Gerrard:

If imagination is a definable property of the mind, it should also be measurable; as the definition progresses from the vague impressions of ordinary human dealings to that offered by standardized situations, so the measure moves from the subjective

judgment of a person . . . to a fairly quantitative statement about performance. (p. 323)

A third means of identification of gifted students is creativity testing. While there are several kinds of creativity tests, the one most commonly used is the Torrance Test of Creativity (1966). This test determines the verbal and artistic parameters of the student's ability through the measuring of fluency, flexibility, originality and elaboration.

The techniques used in Theater Techniques Model of creativity testing have been successfully applied to the early identification of potential talent at the primary level (Nero and Wolf, 1982). This program was used to identify culturally diverse adolescents with the potential of becoming gifted adults, through visual arts and theater experiences.

Some research does indicate that the visual and performing arts do not lend themselves well to creativity testing. Researchers are questioning if creativity tests measure the skills used instead of the giftedness of the talent (Clark and Zimmerman, 1987).

Although local theater directors maintain observation is the method most commonly used for identification of theatrically gifted students, research does show three methods for identification of giftedness: observation, intelligence testing, and creativity testing.

### Benefits for the Gifted Student

The effect of communication and correlation between the theater director and the classroom teacher can be of monumental impact to the student in improved curriculum, and development of self-esteem and confidence.

Torrance writes in *Guiding Creative Talent* (1975) that creative ability increases through third grade, before declining slightly. It is relatively stable between fourth and seventh grades but drops sharply at that point. He asserts that one explanation for the decrease in creativity is that school experiences cause the child to conform. The improvement of the school curriculum by communication between the professional educator and the theater director could decrease or postpone the drop in creativity through development of curricular areas designed to improve creativity.

McCandless (1977) cites Piaget's description that the basic goal of education is to produce individuals capable of creativity. Hicks (1980) mentions Allen's (1976) statement that rather than returning to the basics, "the goal of educators should be to guide all students in reaching their creative potential" (p. 29). The function of the classroom teacher should be to develop the fullest creative potential of each child. The current accepted theory is that this creative ability can be trained and improved by specific techniques (Young, 1970).

Fordyce (1975) states:

In an effort to establish a priority for drama [within the curriculum of the public school] some researchers have described the language outcomes of drama. Such descriptions are largely theoretic, as research to discover the relationship between . . . dramatics and growth in language is limited. If such documentation was available more teachers would include creative drama as part of their curricula. (p. 297)

After improved curriculum, a second benefit of correlation between the theater and the classroom for the gifted students would be the development of self-esteem and self-confidence.

Gifted students need the self-esteem and recognition their achievements bring. Alvino (1985) states that from ages nine through eleven, children begin to be hard on themselves and feel self-conscious. The arts, therefore, provide a way of mirroring oneself and one's personal points of view. McNiff (1987) defines the art of the theater as an all encompassing form of self-consciousness and expression. Public arenas such as recitals, contests, concerts, and plays spur children on by providing significant rewards and approval.

In the final report for the Bilingual Gifted and Talented Program, Brumberg (1979) maintains that a goal of developing curriculum in the arts to be used as a vehicle for self-expression is desirable. Gilbert's (1982) Enrichment Program for Migrant Students stipulates two goals:

"Each student will increase his/her self-concept through self-actualization experiences provided within 'teatro' [performing arts activities].

Each student will enhance his/her self-confidence through participation in dramatic and other forms of expressive activities" (p. 6).

The gifted student can benefit from increased communication and correlation between the classroom teacher in two ways: through increased self-esteem and through an improved curricula designed to develop this self-esteem and promote creativity.

The review of the literature in Chapter 2 has delineated the definitions of giftedness, intelligence and creativity. Generally, gifted students are defined as those with above average intelligence, with a commitment to the task at hand. They often have a positive correlation between creativity and intelligence. Frequently, the gifted students' talents appear to be specific and inborn. Characteristics of the gifted student include good memory skills, the ability to pay attention to details, and being a flexible thinker. In order to identify the gifted, suggestions made included the identification of gifted students through observations, intelligence testing, and creativity tests.

Finally, the benefits to the gifted student through improved curriculum and development of self-esteem were examined.



## CHAPTER 3

## Design of the Study

This study was conducted during the 1987-1988 school year. It is a correlation study of theatrically gifted students and their total battery score from the California Achievement Test, and a correlation of these theatrically gifted students and their scores on the Torrance Test of Creativity. There was not a correlation study done in this paper between the students' scores on the California Achievement Test and their scores on the Torrance Test of Creativity. Research has already been compiled correlating intelligence and creativity in numerous national studies.

The population of the study consisted of twenty students, first through eighth grades. Two of the students were unable to complete the testing, and were not included in the final correlation.

These students, all from the Omaha area, were selected by the Children's Theater director at the Omaha Community Playhouse. The students were selected without regard to race or sex. The director ranked the students, one to twenty, according to their ability on the stage. Using the assumption that all children chosen to perform are theatrically gifted, the rank order of the students did not have a negative aspect, but was basically good to best.

Table 1

Sample Distribution

Grade	Boys	Girls
1	2	0
2	0	0
3	0	1
4	3	2
5	2	2
6	2	1
7	0	2
8	1	0

The Division of Research for the Omaha Public Schools was contacted for the total battery scores from the California Achievement Test for each child in the study. The scores from this test, administered during the same week throughout all Omaha public schools, were from March, 1987.

Next, the students met the first week of March, 1988, at either The University of Nebraska at Omaha or the Swanson Public Library to be given the creativity test. The Torrance Test of Creativity, Figural Test, Form A was administered. This timed test is designed as a drawing test; therefore, age discrepancies are basically eliminated. The

Torrance Test determines the students' creativity score in four areas: flexibility, fluency, creativity, and elaboration. These scores were then combined to determine the students' creativity rank order.

The Spearman rank order coefficient of correlation was then used to compare the theatrically gifted students with their total battery score on the California Achievement Test, and to compare the theatrically gifted students with their score on the Torrance Test of Creativity. Since observed coefficient of correlation may result from chance or sampling error, a t-test was done to determine if the correlation was statistically significant.

Finally, a scattergram was compiled to illustrate the coefficients of correlation.

## CHAPTER 4

### Presentation of the Findings

The purposes of this study are to compare the theatrical ranking of eighteen students with their percentile score on the California Achievement Test, and compare the theatrical ranking of these students with their score on the Torrance Test of Creativity. The presentation of data requires three kinds of information:

1. the correlation of rankings between the students' theatrical rank and their total battery score on the California Achievement Test,
2. the correlation of ranking between the students' theatrical rank and their score on the Torrance Test of Creativity, and
3. a scattergram illustrating the coefficients of correlation.

#### Rank Order of Students

The students' theatrical ranking was determined through the use of an opinionnaire given to the Children's Theater director at the Omaha Community Playhouse. Anonymity of the students was assured.

The director was given the requirements that all the students chosen had been in a minimum of two plays. This would eliminate the possible bias a director might have in choosing a student for a specific play with a specific personality type in mind. This requirement also determined that the ranking was subjective in nature, ranking being best to good, rather than best to poor.

The theater director was also given the limitation that the students were to be in first through eighth grade. It was felt that beyond that grade the students were categorized as adults.

#### Comparison Tables

Table 2 presents the results of the correlation of students' theatrical ranking with their ranking on the California Achievement Test. The theatrical ranking was a subjective ranking by the Theater Director on a high to average basis. The California Achievement Test ranking was based on their total battery score from the spring, 1987 testing period. After computing the D and  $D^2$  a coefficient of correlation was determined.

Table 3 presents the results of the comparison of the students' same theatrical ranking used in Table 2 with their ranking score on the Torrance Test of Creativity. The students' scores in the areas of fluency, flexibility, creativity and elaboration were totaled and ranked, followed by a D and  $D^2$  computation to determine a coefficient of correlation.

Figures 1 and 2 indicate the findings of Table 2 and 3 plotted on a scattergram.

Table 2

Comparison of Theatrical Giftedness and the California Achievement Test

Students' Theatrical Rank	C.A.T. Score	C.A.T. Rank	D	D <sup>2</sup>
1	74	17	16	256
2	97	8	6	36
3	99	2.5	.5	.25
4	99	2.5	1.5	2.25
5	98	6	1	1
6	72	18	12	144
7	95	12	5	25
8	95	12	4	16
9	89	15	6	36
10	99	2.5	7.5	56.25
11	95	12	1	1
12	98	6	6	36
13	96	9.5	3.5	12.25
14	99	2.5	11.5	132.25
15	96	9.5	5.5	30.25
16	93	14	2	4
17	98	6	11	121
18	88	16	2	4

r = .058

Table 3

Comparison of Theatrical Giftedness and the Torrance Test of Creativity

Students' Theatrical Rank	Test Total	Test Rank	D	D <sup>2</sup>
1	169	3.5	2.5	6.25
2	164	6	4	16
3	149	7	4	16
4	117	16.5	12.5	156.25
5	186	2	3	9
6	137	11	5	25
7	145	8	1	1
8	112	18	10	100
9	144	9	0	0
10	197	1	9	81
11	127	12	1	1
12	125	13	1	64
13	168	5	8	25
14	128	14	0	0
15	141	10	5	25
16	117	16.5	.5	.25
17	169	3.5	13.5	182.25
18	123	15	3	9

r = .285

### Results of the Comparisons

The Spearman Rank Order Coefficient of Correlation was used for comparison. A coefficient of correlation on the theatrical ranking and California Achievement Test of  $+0.058$  showed it not to be statistically significant. The t-test on the findings indicated  $.232$ , which is not significant at the  $.05$  level.

The coefficient of correlation on the theatrical ranking and the Torrance Test of Creativity indicated  $+0.285$ , a low, but still not statistically significant finding. The t-test findings were  $1.187$ , which is not significant at the  $.05$  level.

The scattergrams and Figures 1 and 2, all indicate no correlation.

### Summary

The purpose of this section is to report the correlation of the students' ranks in a subjective ranking by the Community Playhouse director, with their rank on the California Achievement Test. Also, the students' theatrical ranks are correlated with their ranks on the Torrance Test of Creativity. The Spearman Rank Order Coefficient of Correlation indicated a result of  $+0.058$  on the theatrically gifted/intelligence correlation. A t-test of this correlation of  $.232$  indicated that the correlation was not significant at the  $.05$  level.

The Spearman Rank Order Coefficient of Correlation for the comparison of students gifted in the performing arts and creativity showed a low correlation of  $+0.285$ , and a t-test of  $1.187$ . Neither statistics are significant at  $.05$  level.



showed a low correlation of  $+0.285$ , and a t-test of  $1.187$ . Neither statistics are significant at  $.05$  level.

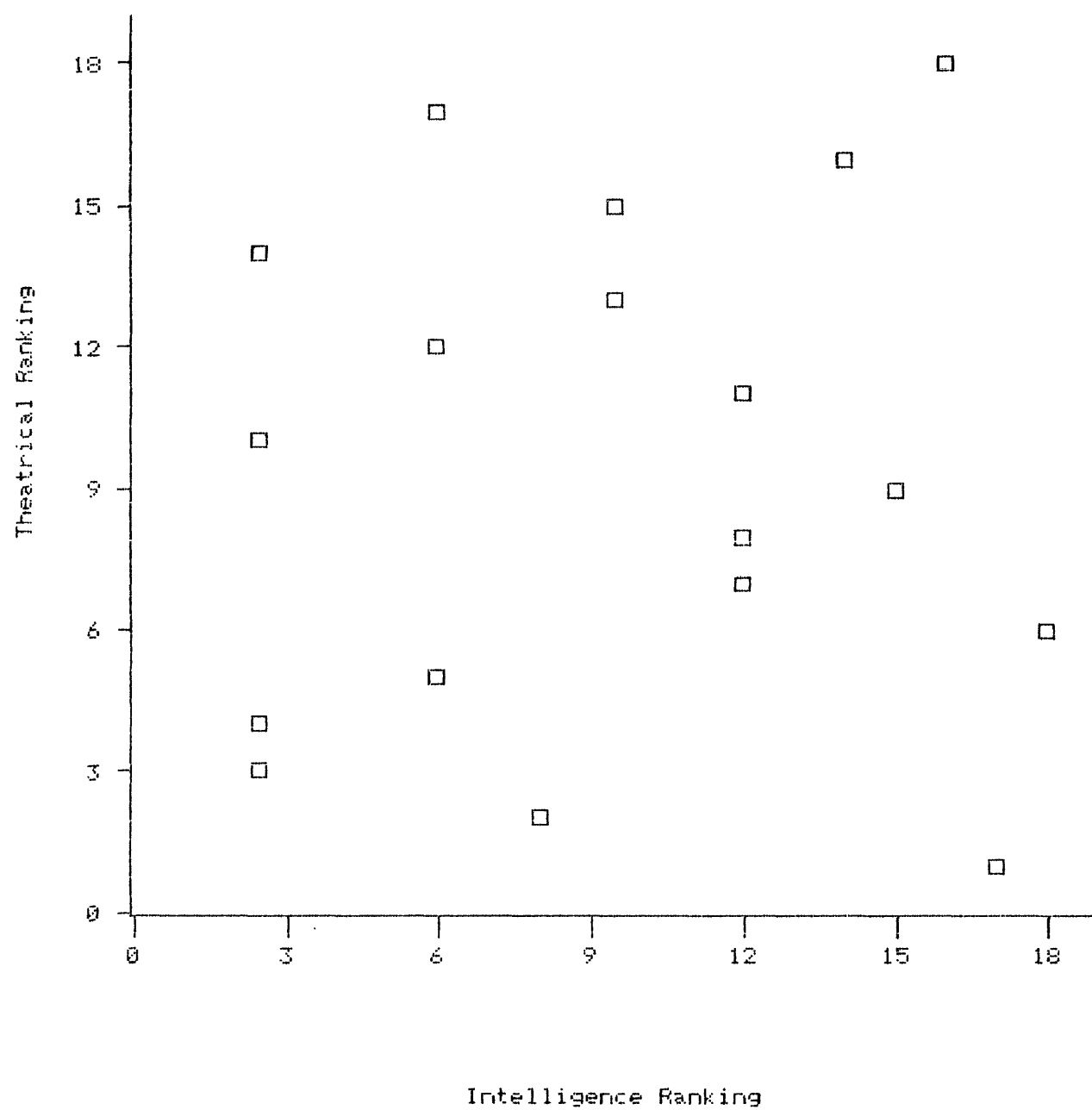


Figure 1.

Correlation of Theatrical Giftedness and Intelligence

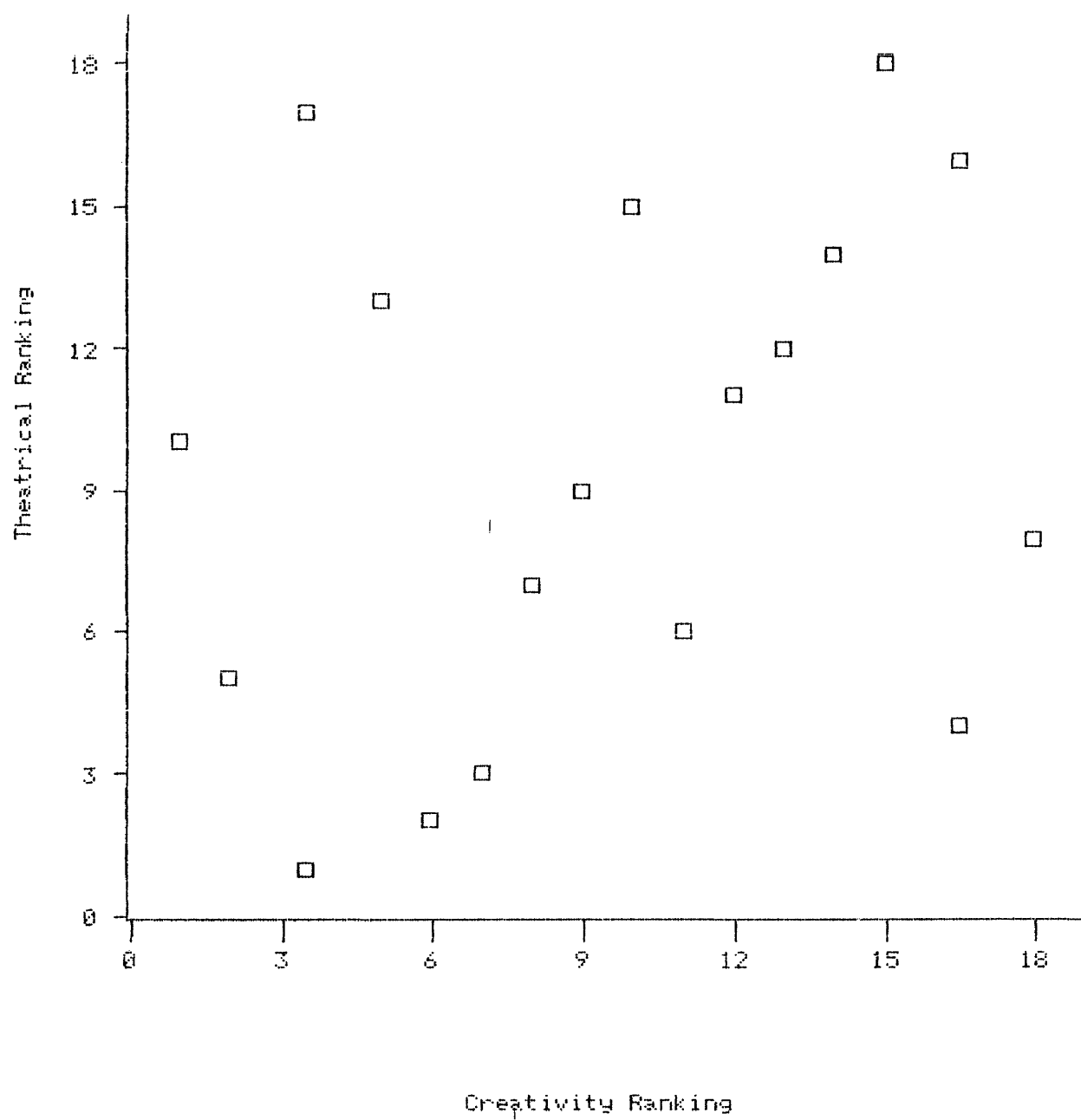


Figure 2.

Correlation of Theatrical Giftedness and Creativity

## CHAPTER 5

## Summary and Conclusions

Purpose of the Study

The problems under investigation were to determine if a significant correlation existed between children identified as gifted in the theater and their score on an intelligence test, and between these theatrically gifted students and their score on a creativity test. The first null hypothesis tested the significance of the correlation between the norm-referenced intelligence test scores of elementary and junior high students and their giftedness in the performing arts. The second null hypothesis tested the significance of the correlation between the creativity test scores of elementary and junior high students and their giftedness in the performing arts.

Sample Studied

A nonprobability sample of eighteen students identified by the theater director at the Omaha Community Playhouse was used. The students ranged from first to eighth grades, with the boy/girl ratio of ten to eight.

Since a limitation for the study was that all students used were to have been in at least two plays, it is assumed that the students would be theatrically gifted.

### Procedure

The students' total battery scores for the March, 1987, California Achievement Test were attained and ranked by percentile. Next the students were given the Torrance Test of Creativity, Figural Form A. This is a creativity test which determines creativity in four areas by drawings and titles, independent of the age of the student. The scores for these four areas, fluency, flexibility, creativity, and elaboration, were tallied, and the students again placed in a rank order.

These scores were then correlated on the Spearman Rank Order Coefficient of Correlation, and plotted on a scattergram.

### Major Findings

The findings of this study can be divided into two parts:

1. the correlation between students gifted in the performing arts and their score on an intelligence test, and
2. the correlation between theatrically gifted students and their score on a creativity test.

### Correlation of Theatrically Gifted Students and Creativity

The score of the Spearman Rank Order Coefficient of Correlation found the correlation of theatrically gifted students and creativity to be  $+0.285$ , a low correlation, not statistically significant. A t-test indicates  $1.187$ , which is not significant at the  $.05$  level. A scattergram of the findings also indicates no correlation. The null hypothesis is accepted.

### Correlation of Theatrically Gifted Students and Intelligence

The score of the Spearman Rank Order Coefficient of Correlation found the correlation of theatrically gifted students and intelligence to be  $+0.058$ , which is not statistically significant. A t-test indicated  $.232$ , which is not significant at the  $.05$  level. A scattergram of these findings also indicated no correlation, the null hypothesis again being accepted.

### Conclusions and Recommendations for Further Research

Due to the high percentiles indicated on the California Achievement Tests in this study, a tentative conclusion could be drawn that students selected for the theater are above average students overall, independent of a rank order.

Also, since the research done by Getzels, Guilford, and other experts in the field of education correlating theatrically gifted students with intelligence and creativity showed conflicting results, perhaps a complete research project should be done for total accurate results. Further, it might be interesting to see if there is a correlation between other areas of giftedness, such as dance or athletics, and standardized intelligence and creativity test scores.

The reader should note that although no degree of significance was found in this study, the students selected by the theater director were all above the 70% on the California Achievement Test. The national average is 50%. Of the eighteen students selected, only four were not in the 90%, which is deemed "gifted" intellectually by the Omaha Public

Schools. A study to determine if theatrically gifted students, independent of rank, are also superior in intelligence, might prove beneficial to teacher and theater directors.

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