A COMPARISON OF PERSONALITY TRAITS BETWEEN ORPHANAGE AND NON-ORPHANAGE CHILDREN

APPROVED:

[Signature]
Major Professor

[Signature]
Minor Professor

[Signature]
Dean of the School of Education

[Signature]
Dean of the Graduate School
A COMPARISON OF PERSONALITY TRAITS BETWEEN ORPHANAGE AND NON-ORPHANAGE CHILDREN

THESIS

Presented to the Graduate Council of the North Texas State College in Partial Fulfillment of the Requirements For the Degree of

MASTER OF SCIENCE

By

Edwin Levi Biggerstaff, Jr., B. S.

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CHAPTER I

PRESENTATION OF THE PROBLEM

Introduction and Related Studies

In recent years there have been many questions and controversies concerning deviations in children as a result of deprivation and/or inadequate family relationships. A great many of these questions have been focused around personality development and structure. It has been assumed by many authors that the emotional and intellectual deprivation resulting from the absence of parental figures produces a series of distinctive personality traits. They further state that these traits are different from those noted and expressed by children reared within a close family atmosphere. Many writers also reveal in their studies that the emotional deprivation arising from a child spending his early years in an institution may produce a definite distortion and variation from the traits and patterns seen in the well adjusted personality.

Goldfarb states, "The deprived infancy of the institutional child resulted in a dramatic arrest in all aspects of his development and in the formation of a characteristically atypical type of personality" (5, p. 106).

Feinberg says:

Children living away from home are in an atypical situation whether they are placed in an institution
for delinquents, in a foster home, or in an orphans home. They lack the immediate presence of loving parents to appraise their successes. They are ever under tension to secure the proper kind of attention from those who are in charge of them. They never are fully able to know if they have accomplished their goal, and if accomplished, what it actually means to them (3, p. 217).

Using an experimental group of fifty-one children who had spent three years or more in institutions and a control group of fifty-two children brought up in their own families, Bodman concluded that children brought up in institutions were less mature socially than those in the control group, as measured by the Vineland Social Maturity Test. He attributes this to the lack of opportunity and the restrictions associated with institutional life (2, pp. 68-69).

Stagner relates that,

The child who lacks security in his earliest years and who encounters an excess of unpleasant experiences will develop a conception of his environment as threatening and cold. His behavior will tend toward protective (but socially unfortunate) patterns. He will thus elicit unfriendly behavior from associates and so be confirmed in his opinion (9, p. 136).

Goldfarb investigated the effects of institutionalization on the adolescent personality as revealed through Rorschach data. He used fifteen children (eight boys and seven girls) whose ages ranged from ten to fourteen and whose early life had been spent in an institution and compared them to a control group of children whose total life experiences had been outside an institution. The
institutional group of children was found inferior to the control group in accuracy of perception. Goldfarb also stated that deviation from the normal in behavior and general adjustment and less conscious drive to social conformity are indicated by the orphan group. The institutionalized child showed an absence of rational control and immature emotionality. Goldfarb believes that following institutionalization, when the child is placed in a personal, family-like atmosphere (the foster home), the children do not form relationships normally, e.g., they remain removed and unattached (6).

Other authors take an entirely different approach to the effects of institutionalization of children. One writer tends to believe that,

Whereas at home the child has known two parents he now must adjust to several parent substitutes; instead of adding to his confusion, this can become a beneficial experience. Groundwork in personal relationships has already been laid for him in the atmosphere created by harmonious relations among members of the personnel (8, p. 88).

Bowlby believes that statements implying that children brought up in institutions or those who suffer other forms of serious deprivation in early life commonly develop psychopathic or affectionless characters are mistaken. The outcome is varied and of those who are damaged, only a small minority develop those very serious disabilities of personality that first drew attention to the pathogenic nature of separation and institutionalization (2).
In the summation of these studies, there is still a conflicting opinion concerning the effects of institutionalization of children with the greater percentage of writers stating that there is a pattern of maladjustment in the personality structure of the child who is separated from his or her parents during early childhood.

Though there has been some studies made concerning parent-child separation and the effects derived therefrom, there has been a lack of research connected with children living in orphanage institutions and the personality traits which they are revealing at this particular developmental period in their life. Inasmuch as some of the more stable components of the personality of the adult are acquired in pre-adolescent and adolescent stage of development, it seems that more research is needed to determine the personality traits revealed in these children, and to utilize this knowledge as a background to a better understanding of the orphanage child.

Also connected with orphanage institutions is the problem concerning the assets of institutional children attending public schools. Frederickson states, "It is better for the children to attend schools off the institutional premises with boys and girls of the community" (4, p. 197).

This statement is supported by Hopkirk who says, "Some institutions which have their own schools bring about happy relations, but too often the teachers are those who have
been found unacceptable in schools serving the general popula

A definite factor which also might affect the results of this study and have a significant relationship in personality differences found in orphanage children is their length of stay in the institution.

Nature and Purpose of Problem

On the assumption that there are personality differences between orphanage and non-orphanage children, and that length of stay and attendance in public schools have a significant relation to adjustment, the following hypotheses were set up for investigation:

1. That there are significant differences in personality traits between orphanage and non-orphanage children utilizing the criteria of social and personal adjustment.

2. That these differences will indicate that non-orphanage children are better adjusted than orphanage children, as measured by the California Test of Personality.

3. That these individuals who have resided in an institution for the greater part of their life will show a lowering of personal, social and total adjustment as measured by the California Test of Personality.

4. That those institutionalized children who attend public school will show better personal, social and total adjustment than those who attend their own institutional school.
This study is being done with the realization that personality traits are characteristics which individuals possess in varying degrees. These degrees are in relationship to the various methods of organization of the person in meeting and adjusting to the problems encountered by the individual.

One can only assume the variability of traits and the amount of degree of adjustment assimilated into the personality structure of a child by comparing it to the statistical norms established by the authors of the personality test utilized in this study.

To detect possible adjustment problems and in attempting to identify the areas of maladjustment from which a child may be suffering, the writer administered the California Test of Personality; a test of personality measurement and observation taken from a subjective frame of reference.

Description of Rating Scale

The measuring device used in this study was the California Test of Personality, Intermediate Form AA, Grades 7 to 10, 1953 Revision, by Willis W. Clark, Ernest W. Tiegs and Louis P. Thorpe. The test was administered to the orphanage and non-orphanage groups. This particular personality test tends to identify and measure the factors of self and social adjustment, by breaking these two main sections into sub-sections or component parts.
The components of the personal or self adjustment scale are:

1A. Self-reliance—an individual is self-reliant when his overt actions indicate that he can do things independently of others, depend upon himself in various situations and direct his own activities.

1B. Sense of personal worth—an individual possesses a sense of personal worth when he feels he is well regarded by others, when he feels that others have faith in his future successes and when he believes that he has average ability.

1C. Sense of personal freedom—an individual enjoys a sense of freedom when he is permitted to have a reasonable share in the determination of his conduct and in setting the general policies that shall govern his life.

1D. Feeling of belonging—an individual feels that he belongs when he enjoys the life of his family, the well-wishes of good friends and a cordial relationship with people in general.

1E. Withdrawing tendencies—the individual who is said to withdraw is the one who substitutes the joys of a fantasy world for actual successes in life.

1F. Nervous symptoms—the individuals who are classified as having nervous symptoms are the ones who suffer from one or more of a variety of physical symptoms such as loss of appetite, frequent eye strain, inability to sleep, or a tendency to be chronically tired.
The components of the social adjustment scale are:

2A. Social standards—the individual who recognizes desirable social standards is the one who has come to understand the rights of others and who is appreciative of the necessity of subordinating certain desires to the needs of the group.

2B. Social skills—an individual may be said to be socially skillful or effective when he shows a liking for people, when he inconveniences himself to be of assistance to them and when he is diplomatic in his dealings with both friends and strangers.

2C. Anti-social tendencies—an individual would normally be regarded as anti-social when he is given to bullying, frequent quarreling, disobedience and destructive-ness to property.

2D. Family relations—the individual who exhibits desirable family relationships is the one who feels that he is loved and well treated at home, and who has a sense of security and self-respect in connection with the various members of his family.

2E. School relations—the student who is satisfactorily adjusted to his school is the one who feels that his teachers like him, who enjoys being with other students and who finds the school work adapted to his level of interest and maturity.

2F. Community relations—the individual who may be said
to be making good adjustments in his community is the one who mingles happily with his neighbors, who takes pride in community improvements and who is tolerant in dealings with both strangers and foreigners.

Some example questions found within the test are:

Do members of the opposite sex seem to like you as well as they do your friends? (Question No. 57)

Do you like to do things that old-fashioned people say you shouldn't? (Question No. 45)

Do you sometimes have stomach trouble without any apparent reason? (Question No. 30)

Do people at school sometimes treat you so badly that you feel it would serve them right if you broke some things? (Question No. 129)

Are there any people in your neighborhood so annoying that you would like to do something mean to them? (Question No. 178).

The answers to these questions give us some basis of understanding as to the attitudes, opinions and thoughts the child has concerning his feelings of recognition, adequacy, security and over-all self and body concern.

Subjects Used in Study

The test was administered to two groups, orphanage and non-orphanage children. The groups were equal in number with one hundred subjects in each. The orphanage children were obtained from three religious denominational institutions in Texas. The non-orphanage children were obtained from two public schools with one school being a high school and the other a junior high school. Children in
both groups ranged in school levels from the eighth to the tenth grade. Groups were assigned on a random basis with the belief that differences in groups on any subject variable would tend to balance itself out. The children from two orphanages attended public schools while the children of the third institution attended their own school system located within the organization of the orphanage.

The mean age of the children in the orphanage group was 14.6 years with the mean of the non-orphanage group being 14.2 years. In selecting the subjects no regard was given to intelligence with the children coming from schools of both urban and rural locale. Non-orphanage children is the term given to the group of children who live within their own families.

To determine if length of stay in the institution was significant in the results found and to investigate into hypothesis number three, a sample of twenty-three subjects institutionalized six years and under (11 boys and 12 girls) with a mean age of 15.5 was compared with a sample of twenty-seven subjects institutionalized over six years (18 boys and 9 girls) with a mean age of 15.3. The mean of the length of stay in the institution for the group six years and under was 4.2 years and the mean for the other group institutionalized over six years was 9.3 years. The groups
were divided at this point due to the fact that the children tended to form a natural dichotomous grouping as to length of stay in the institution.

In an effort to investigate hypothesis number four a sample of fifty-eight subjects who attend their own institutional school was compared with a sample of forty-two subjects who attend public school.

Method of Securing Data

The tests were administered by the investigator during the school year of 1957-1958. The children were instructed to be as truthful as possible when answering the questions. No time limit was given with the belief that each child would then answer each question more accurately.
CHAPTER BIBLIOGRAPHY


CHAPTER II

STATISTICAL ANALYSIS OF DATA

In the first chapter four hypotheses were set forth concerning differences in personality traits between orphanage and non-orphanage children. In order to test them, the critical ratio and t-test of non-related groups was used to test the significance of the differences between the means of both groups for each sub-test in the California Test of Personality.

In order to discuss the results of the study, each hypothesis will be treated separately. The first hypothesis was:

1. There are significant differences in personality traits between orphanage and non-orphanage children utilizing the criteria of social and personal adjustment as measured by the California Test of Personality.

The results show that the mean differences on each sub-test range from 1.23 to 4.44 with differences in personality traits and adjustment evident on every sub-test between orphanage and non-orphanage groups.

The least degree of variability on one sub-test is in the trait of social standards. This is revealed in Table I. This would be as expected inasmuch as those within the institution as well as those individuals outside the institution
would tend to recognize and understand the rights of others in an effort to adapt and adjust to their own milieu. Especially is this so in this stage of development when peer status is so necessary. Many studies indicate that this type of individual conformity to social standards is a very useful defense.

Table I indicates that the largest variability between means was shown on the trait of withdrawing tendency. This might be due to the fact that those individuals within the institution have not had the opportunity for praise and satisfaction of their successes, have not matured sufficiently to grasp reality situations and therefore withdraw into a fantasy life for ego strengths rather than strive for actual goals and successes.

The highest mean raw scores for the orphanage group were in social standards, feeling of belonging and family relations, and the lowest mean raw scores were in the sense of personal freedom, withdrawing tendencies and self reliance. The non-orphanage group sub-test highs were in social standards, feeling of belonging and family relations and the lows being self-reliance, withdrawing tendencies and social skills. It is interesting to note that both groups ranked highest on social standards, family relations and feeling of belonging. The writer has explained previously the low degree of variability on social standards, peer status and development of friends and group cohesiveness
so prominent in this age level. This tends to also explain the high degree of adjustment toward feeling of belonging in both groups. One would expect relatively good adjustment among non-orphanage children within the family, school, and community institutions. It is possible that the orphanage children still identify and relate themselves to their family even though they are now institutionalized. It is a convenient psychological crutch.

The low adjustment score on self-reliance among non-orphanage children can perhaps be explained by the fact that those individuals who do live in a close family relationship generally feel as if they are engaged in a restricted and dependent life. This may be due to the fact that the individual is caught in the dilemma of dependency or independency, security or insecurity, which is a part of every adolescent's developmental progress. There is also the factor of the Oedipal and Electra situation entering the picture which the orphanage child does not have to contend with to such a great degree.

The low adjustment of non-orphanage children in social skills is not surprising. Though the adolescent may like people, there is still much stereotyping and narrow discrimination seen in the person lacking mature thought processes. Children identify early with parents and tend to accept and integrate their ideals and standards. The child sees the advantage of the strong over the weak and
is not likely to be diplomatic in all of his interpersonal relationships.

Withdrawing tendencies and much fantasies are evident in all adolescents with their fantasy life usually concerning conquering heroes and martyrdom.

The results of Table I show that the differences between orphanage and non-orphanage children, as measured by this test, were significant at better than the .001 level, validating this hypothesis.

The second hypothesis stated was:

2. These differences will indicate that non-orphanage children are better adjusted than orphanage children, as measured by the California Test of Personality.

Table I also reveals that this hypothesis is supported by the findings of this study, for the mean raw scores and converted percentile ranks of every sub-test indicates that there is better adjustment in non-orphanage individuals than orphanage, as measured by this test. The critical ratio of all sub-tests shows a difference better than the .001 level of significance. This hypothesis, too, appears valid.

The third hypothesis presented was:

3. That those individuals who have resided in an institution for the greater part of their life will show a lowering of personal, social and total adjustment as measured by the California Test of Personality.

Table II reveals a difference in personal adjustment between the two groups with the individuals who have been
institutionalized six years and under showing a higher personal adjustment score than those who have been institutionalized over six years. This was not significant as measured by the t-score for non-related groups. Table II shows, however, a great difference between the two groups in social and total adjustment with the institutionalized children six years and under showing a greater degree of adjustment than the children over six years. The first group had a mean of 65.0 with the second group having a mean of 55.9, with a mean difference of 9.1. This was on social adjustment. These differences are significant at better than the 2 per cent level. Under total adjustment the group with six years and under had a mean of 120.26 with the group over six years having a mean of 106.26, and a mean difference of 14.00. This difference is better than the 5 per cent level of significance.

Perhaps this can be explained by the fact that competition and cooperation with other children are very important to the child who is new in the institution, whereas this is not so in the children who have been in the institution for a number of years. In the newly arrived child and for a few years afterwards there are still emotional ties with parents and friends who are outside the institution. A child who has been reared in a home where he has been rejected, neglected, overly possessed or subject to inconsistent affection will respond better in an impersonal
atmosphere of an institution until he has developed strong positive identifications.

Those individuals who have lived the greater portion of their life in institutions have had to deal with a lack of personal freedom and initiative, a life of excessive routine, and a limitation of social contacts.

These data necessitate a rejection of the null hypothesis concerning personal adjustment and an acceptance of the hypothesis concerning social and total adjustment. A factor that is not controlled in this finding is the age at which the child entered the institution. This might have a significant bearing on the results.

The fourth hypothesis stated:

4. That those institutionalized children who attend public school will show better personal, social and total adjustment than those who attend their own institutional school.

Table III indicates that this hypothesis was not supported by the findings of this study for the critical ratios of each criterion were not significant. Although the results in Table III show no significant difference, the individuals who attended their own schools tended to do slightly better on personal adjustment than those who attended public schools. There was absolutely no difference between the two groups on social adjustment, however, the children who attended their own school showed a higher
total adjustment score than did those individuals who attended public schools.

This may be explained by the fact that schools provide a weaning process for both groups. In the school systems social interrelations are used considerably by teachers to establish better adjustments. Teachers in both schools help the child to better understand his own problems. There is the possibility of a stronger identification between the orphanage child and his teachers than non-orphanage children. Therefore, reprimands and constructive criticism from the teacher would have a positive effect on the child and perhaps prevent and discourage him from other unacceptable behavior.

Extra-curricular or co-curricular activities among adolescents facilitate personal and social adjustment. In orphanage settings in particular these school programs both inside and outside the institutions are the only contact the child has in trying to bring together his maturation, socialization and education background in a process of social interaction. Also school situations are where leadership may and often does develop.

The results indicate that hypothesis number four must be rejected and the null hypothesis accepted.

Tables I, II, and III may be found in the Appendix of this study.
CHAPTER BIBLIOGRAPHY


CHAPTER III

SUMMARY AND CONCLUSIONS

One hundred orphanage children were compared with one hundred non-orphanage children to determine if there were differences in personality adjustment as measured by the California Test of Personality. An attempt was also made to determine differences of adjustment between those orphanage children who attend public schools as compared with those orphanage children who attend their own institutional school system. An effort was also made to determine whether length of stay in the institution had an effect on personal and social adjustment. The data obtained in this study appeared to warrant the following conclusions:

1. There are significant differences in personality traits between orphanage and non-orphanage children utilizing the criteria of social and personal adjustment as measured by the California Test of Personality. This was significant at better than the .001 level.

2. Differences in adjustment indicated that non-orphanage children are better adjusted than orphanage children, as measured by this test. This was significant at better than the .001 level.

3. Those children who have been institutionalized six years and under were found to be better adjusted than those
children who have been institutionalized over six years. The differences, however, in the personal adjustment were not found significant. On social adjustment the differences were significant at better than the 2 per cent level. On total adjustment the differences were better than the 5 per cent level of significance.

4. There were no significant differences in personal, social and total adjustment between those institutionalized individuals who had attended public schools and those who had attended their own institutional school system. However, those individuals who attended their own schools tended to do slightly better on personal and total adjustment than the other group who attended public schools. There was absolutely no differences in social adjustment between the two groups.

From the above conclusions certain recommendations can be made concerning problems confronting the institutionalization of orphanage children.

1. A classification system should be established in an effort to not only indoctrinate the newly committed child into institutional policies, but to adequately and accurately determine individual personality and emotional problems, if any. This can be done with the use of a battery of tests, including interest, intelligence, aptitude and personality. This will allow for skills which perhaps had heretofore been hidden beneath the surface to be
revealed, developed and utilized. Personal and social adjustment problems would also be revealed and emotional outlets could be established by the institution while at the same time counseling is given either individually or in groups.

There is a need to establish vocational training programs within an institution and to focus the child's training in levels of work within his capacity.

Also connected with this classification and training program should be group instruction in various matters concerning sex and marriage. This must be done by someone who is understanding and objective and can discuss freely sexual problems and adjustments connected with an individual's development toward adulthood.

2. Further research should concern itself with problems concerning the segregation as to age groups within some institutions to determine if there is a tendency for age segregation to hinder positive identification of masculine and feminine roles. Research might further discover a reduction in the adaptiveness of the individual to get along with people of other age groups due to segregation.

3. Sociometrics could be utilized within the institution. If handled properly, this would produce less interpersonal friction, enable the child to feel that he has choice and self-direction and aid counselors and teachers
to determine those children rejected and accepted by the other children. This technique could also help in choosing work groups, room mates, and enable authorities to locate chains of communication channelled through the groups. Finally, it can create the effect that the administration is behind the children and wants to help them.
### Table I

**Measures of Central Tendency and Variability for the Raw Scores of Each Sub-Test, Converted Percentile Ranks, and Levels of Significance Between the Means of the Two Groups**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Mean Raw Score</th>
<th>Mean Raw Score Converted to P.R.</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>Critical Ratio</th>
<th>Levels of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q*</td>
<td>N**</td>
<td>0%</td>
<td>50%</td>
<td>Q</td>
<td>N</td>
</tr>
<tr>
<td>a. Self-reliance</td>
<td>8.04</td>
<td>10.36</td>
<td>20%</td>
<td>50%</td>
<td>2.82</td>
<td>2.34</td>
</tr>
<tr>
<td>b. Sense pers. worth</td>
<td>9.03</td>
<td>11.94</td>
<td>20%</td>
<td>40%</td>
<td>2.91</td>
<td>2.39</td>
</tr>
<tr>
<td>c. Sense pers. freedom</td>
<td>7.49</td>
<td>11.91</td>
<td>10%</td>
<td>40%</td>
<td>4.42</td>
<td>2.96</td>
</tr>
<tr>
<td>d. Feeling of belonging</td>
<td>10.11</td>
<td>12.90</td>
<td>20%</td>
<td>30%</td>
<td>2.79</td>
<td>2.95</td>
</tr>
<tr>
<td>e. Withdrawing tend.</td>
<td>7.27</td>
<td>11.71</td>
<td>10%</td>
<td>40%</td>
<td>4.44</td>
<td>2.91</td>
</tr>
<tr>
<td>f. Nervous symptoms</td>
<td>9.18</td>
<td>11.92</td>
<td>20%</td>
<td>40%</td>
<td>2.74</td>
<td>3.01</td>
</tr>
<tr>
<td>a. Social standards</td>
<td>12.04</td>
<td>13.32</td>
<td>30%</td>
<td>50%</td>
<td>1.28</td>
<td>2.39</td>
</tr>
<tr>
<td>b. Social skills</td>
<td>9.28</td>
<td>11.41</td>
<td>20%</td>
<td>50%</td>
<td>2.13</td>
<td>2.66</td>
</tr>
<tr>
<td>c. Anti-soc. tendency</td>
<td>8.48</td>
<td>12.26</td>
<td>20%</td>
<td>50%</td>
<td>3.78</td>
<td>3.36</td>
</tr>
<tr>
<td>d. Family Rela.</td>
<td>10.11</td>
<td>12.96</td>
<td>20%</td>
<td>40%</td>
<td>2.85</td>
<td>3.08</td>
</tr>
<tr>
<td>e. School Rela.</td>
<td>9.65</td>
<td>12.09</td>
<td>20%</td>
<td>50%</td>
<td>2.44</td>
<td>3.02</td>
</tr>
<tr>
<td>f. Community Rela.</td>
<td>9.84</td>
<td>12.42</td>
<td>20%</td>
<td>50%</td>
<td>2.58</td>
<td>2.66</td>
</tr>
</tbody>
</table>

* Q represents the orphanage group  **N represents the non-orphanage group
## TABLE II

**LEVELS OF SIGNIFICANCE OF THE DIFFERENCE BETWEEN THE ADJUSTMENT MEANS OF ORPHANAGE CHILDREN INSTITUTIONALIZED SIX YEARS AND UNDER AND ORPHANAGE CHILDREN INSTITUTIONALIZED OVER SIX YEARS**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Mean Raw Score</th>
<th>Mean Raw Score Converted to P.R.</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>t Score</th>
<th>Levels of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mu*</td>
<td>Mo**</td>
<td>Mu</td>
<td>Mo</td>
<td>Mu</td>
<td>Mo</td>
</tr>
<tr>
<td>Personal Adjustment</td>
<td>55.3</td>
<td>50.3</td>
<td>20%</td>
<td>10%</td>
<td>5.0</td>
<td>10.51</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>65.0</td>
<td>55.9</td>
<td>30%</td>
<td>10%</td>
<td>9.1</td>
<td>13.01</td>
</tr>
<tr>
<td>Total Adjustment</td>
<td>120.2</td>
<td>106.2</td>
<td>20%</td>
<td>10%</td>
<td>14.0</td>
<td>21.34</td>
</tr>
</tbody>
</table>

* Mu represents orphanage children institutionalized six years and under  
** Mo represents orphanage children institutionalized over six years
TABLE III

LEVELS OF SIGNIFICANCE OF THE DIFFERENCE BETWEEN THE ADJUSTMENT MEANS OF THE ORPHANAGE CHILDREN ATTENDING PUBLIC SCHOOL AND THE ORPHANAGE CHILDREN ATTENDING THEIR OWN SCHOOL

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Mean Raw Score</th>
<th>Mean Raw Score Converted to P.R.</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>Critical Ratio</th>
<th>Levels of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O*</td>
<td>P**</td>
<td>O</td>
<td>P</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>Personal</td>
<td>52.1</td>
<td>49.7</td>
<td>10%</td>
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<tr>
<td>Social</td>
<td>59.4</td>
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<tr>
<td>Total</td>
<td>111.6</td>
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<td>10%</td>
<td>2.5</td>
<td>21.69</td>
</tr>
</tbody>
</table>

*O represents orphanage children attending their own school
**P represents orphanage children attending a public school
BIBLIOGRAPHY

Books


Articles


Goldfarb, W., "Effects of Early Institutional Care on Adolescent Personality: Rorschach Data," American Journal of Orthopsychiatry, XIV (1944), 441-447.