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# A Comparison of the Wisc and Binet in Delinquent Children

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A COMPARISON OF THE WISC AND BINET IN

DELINQUENT CHILDREN

by

William S. McGurk

A Thesis Submitted to the Faculty of the Graduate School

of Loyola University in Partial Fulfillment of

the Requirements for the Degree of

Master of Arts

October, 1960

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## CHAPTER I

### INTRODUCTION

- A. Brief history and description of the Psychiatric Department of the Family Court of Cook County, and it's function.

The Juvenile Court Act of Illinois was approved on April 21, 1898, and became a law July 1, 1899. It was entitled, "An Act to Regulate the Treatment and Control of Dependant, Neglected and Delinquent Children" (p. 25)<sup>1</sup>. This was the first such act adopted by any State in this Country. The first Psychiatric facility made available to the Court was in the form of referrals made to the Institute of Juvenile Research (I.J.R.), inaugurated in approximately 1922. There was a full time screening Psychiatrist at the Court who would arrange for transportation to I.J.R., of those cases, in his opinion, needing examination. In 1936, a subdivision of I.J.R. was permanently housed at the Family Court building. This was staffed by employees of the State of Illinois. In 1945 however, I.J.R. separated completely from the Court, and the Psychiatric Department of the Court was founded. This was staffed, as it is now, by Cook County employees. The present staff of the Psychiatric Department is comprised of four part time psychiatrists (including the medical director), three full time psychologists (including the Administrative director), and two full time secretaries.

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<sup>1</sup>Juvenile Court of Cook County, Fiftieth Anniversary Report for the year 1949, The Inland Press Inc., Chicago.

At the present time, the average number of referrals per month to the Family Court total 1359 cases. Of this number, 852 (63%) are on delinquent petitions. The average number of referrals per month to the Psychiatric Department total 85 cases. Of this number, 57 (67%) are on delinquent petitions.

Regarding the method of the referral of cases to the Psychiatric Department, the following is standard procedure. Cases may be referred for examination by Judges, Referees, or Probation Officers. The referrals made by probation officers are usually made before the case is heard in court. Those made by judges or referees are, of course, made after the court hearing, where they feel that before an adequate judgement can be made, the recommendation of the Psychiatric Department is needed. Under any circumstances however, the case in point is brought to the Psychiatric Department by it's assigned probation officer or their supervisor. The probation officer then discusses the case with a screening psychologist. A determination is then made, regarding the type of examination(s) to be given, if any, and the date and time of said examination.

The most frequent reasons for requesting and/or scheduling a psychometric examination are as follows:

1. A referral is to be made to an agency for placement, and an intellectual evaluation is required.
2. The subject is suspected of being defective, dull, or extremely bright, and evaluation is needed so that proper recommendations can be given.
3. An examination is given as an aid to diagnosis, in conjunction with a psychiatric examination.

It should be evident now that a great many of those cases that would score within the average or somewhat above average range of intelligence are not examined, because their particular level of intelligence is not considered to be problematic. This will be discussed further below.

B. Statement of the problem and purpose.

When accepting referrals in the psychiatric department for intellectual evaluation, it was noticed in many of those cases where a previous Binet I.Q. was reported, that the I.Q. obtained on the WISC would be higher. This occurrence was most noticed in those delinquent cases referred for possible commitment to schools for the mentally retarded. In these cases, it was observed by the author that most often the WISC verbal I.Q. would closely approximate the Binet I.Q., but the WISC performance I.Q. would be somewhat higher and in many cases, very much higher. It should be pointed out here, that before a petition can be filed in the court alleging mental deficiency, the child in question must first be tested in the psychiatric department of the court, regardless of other examinations that have been administered. Because of the discrepancy, an "M.D. petition" could not be filed in many cases. This phenomenon was also noticed in many of the delinquents referred to the psychiatric department of the court for intellectual evaluation, who had been placed in ungraded classrooms in their respective communities. Frequently their WISC performance I.Q. would show a much greater intellectual potential than previously indicated on the Binet.

In the course of his reading concerning the problem of delinquency, this

author was impressed with a study by Sheldon and Eleanor Glueck entitled Unraveling Juvenile Delinquency, which used as it's sample 500 normals and 500 delinquents. In this study, the delinquents were compared with the "normals" as to racial background, personality structure, intelligence, etc. The findings regarding the differences in intellectual capacity of the two groups, using the Wechsler-Bellevue Scale were, "... in the direction of less verbal intelligence among delinquents" (p. 204). These findings suggested to this author a possible explanation of the higher scores on the WISC as opposed to the Binet, which occurred among the delinquents in the court. It also suggested the need for further research along these lines.

The purpose of this work then, following Glueck's study which points out that by and large delinquents score lower on the verbal section of the Wechsler-Bellevue Scale as opposed to the performance section is to:

1. Attempt to verify this using the WISC ....and,
2. Compare the results obtained on the WISC with those given on the Revised Stanford Binet Scale, Form L, in the same population.

It is suspected by the author that, if Glueck's postulate is verified in this sample, the full scale I.Q. on the WISC should be higher than the Binet I.Q., this being influenced by the comparatively high performance I.Q. It is further suspected that the correlations between the Binet I.Q. and the WISC verbal section will be high, comparatively speaking, in the majority of cases.

There are several apparent difficulties at the present time, regarding the sample used. Because of the type of case most often referred to the psychiatric department, that is, those to be committed to state schools for the mentally retarded, and those cases where mental deficiency is suspected, the mean I.Q.



of the sample used will be below average, within the lower limits of the dull normal range. As a result of this, as it now stands, there will be a decrease in the level of significance for the whole group, due to the increased S.D. Another problem which should be pointed out is that the sample was not screened to the point of delimiting suspected brain damage cases. These particular cases, for the most part, tend to score lower on a performance section of an intelligence test, which would also tend to lower the level of significance for the whole population. It was felt however, that in order to present a true picture of differences in test performance of delinquents at the Family Court, no cases should be cut from the sample.

Considering the fact that only delinquent cases are being used in this sample, a specific definition of delinquency should be given. The one to be used is stated in section 2001 of "the family court act" (1957), and is as

follows: "The words 'delinquent child' shall mean any male or female child who while under the age of eighteen years, violates any law of this State; or is incorrigible, or knowingly associates with thieves, vicious or immoral persons; or without just cause and without the consent of it's parents, guardian or custodian absents itself from its home or place of abode, or is growing up in idleness or crime; or knowingly frequents any policy shop or place which any gaming device is operated; or frequents any saloon or dram shop where intoxicating liquors are sold; or patronizes or frequents any public pool room; or wanders about the streets in the night without being on any lawful business or lawful occupation; or habitually wanders about any rail road yards or tracks or jumps or attempts to jump onto any moving train; or enters any car or engine without lawful authority; or uses vile, obscene, vulgar, profane or indecent language in any public place or about any schoolhouse; or is guilty of indecent or lascivious conduct; any child committing any of these acts herein mentioned shall be deemed a delinquent child and shall be cared for as such in the manner hereinafter provided."

To the authors knowledge, there is no record of a similar study comparing the Binet and WISC I.Q.'s, reported in the literature. Considering this, the results of the study should prove to be valuable, particularly in a court

setting, where intellectual evaluation of delinquent children is needed.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The study which most closely pertains to the problem presented in this paper is that study done by Glueck and Glueck (1950) in which a sample of 500 delinquents and 500 non-delinquents were used. The authors were interested in determining the differences (if any) in the components of their intelligence as revealed in the verbal and performance aspects of the Wechsler-Bellevue Scale. They concluded that, "such differences as exist in the intellectual capacity of the delinquents and non-delinquents are in the direction of less verbal intelligence among the delinquents" (p. 204). Comparison of the mean scores obtained by each group on the subtests of the verbal and performance batteries make clear that both groups handle performance material more effectively than they cope with verbal material. Nevertheless, there is more of a gap between these two aspects of intelligence among the delinquents (a difference of -9.55 points between their mean verbal and mean performance weighted scores) than among the non-delinquents (a difference of -7.65 points). These results tend to support this authors' findings in his work at the court, and is a main reference for the present study. The size of the sample used by Glueck and the care which was taken in selecting it, certainly raises the reliability of such a study, and makes it a very important reference regarding the intelligence of delinquents.

This author could find no references in the literature comparing the WISC and the Binet specifically using delinquent children. There has been however,

a great deal of research dealing with the validity of the WISC in comparison to the Binet. This literature began to appear soon after the publication of the WISC in 1949. A summary of this aspect of the literature is as follows.

Frandsen and Higginson (1951) reported a study on 54 fourth-grade children and concluded that "I.Q. norms from the S-B and WISC are comparable at least within the range of one to two sigmas above and below the mean" (p. 283). This is one of the more favorable and unqualified statements of the comparability of the WISC and Binet appearing in the literature.

An article by Pastovic and Guthrie (1951) followed summarizing the results of five unpublished master's theses. They concluded "that the WISC I.Q. should not be interpreted as equivalent to a Binet I.Q. at age levels below ten years of age since the WISC score is consistently lower than that of the Binet" (p. 385). It is this authors feeling that the WISC may score lower than the Binet at age levels under ten years because of the formats of the tests themselves. The questions on the WISC in the low age groups seem much more difficult than those questions at equivalent age levels on the Binet. As a matter of fact, Wechsler must have observed this, in that he allows credit to be given to subjects who earn no score in several of the subtests at these early levels.

Kreegman, Justman, Wrightstone and Kreegman (1951) found significant differences between the WISC full scale and performance scale I.Q.'s and the Binet I.Q. at all age levels (6-15), which were consistently in favor of the Binet. Differences between the Binet and WISC verbal scale tended to be significant only at younger age levels. They concluded further that "there is a definite tendency for greater differences...to be associated with the higher Stanford-Binet I.Q.'s," and that differences between Binet and WISC verbal and

full scale I.Q.'s "tend to be associated with chronological age, in that such differences are larger at younger age levels" (p. 482).

It should be noted that a child cannot obtain an I.Q. above 154 on the WISC without extrapolation beyond the norms, while the Binet would allow much higher scores. This fact may explain in part the finding that the greater differences were associated with the higher Binet I.Q.'s.

Weider, Noller, and Schraumm (1951) also found that while the Binet and WISC I.Q.'s are significantly correlated, "the Binet I.Q.'s tend to be higher than the WISC I.Q.'s for the same children" (p. 332). A regression equation was suggested relating Binet to WISC full scale I.Q.'s in which WISC equals  $0.85 \text{ Binet} + 11$ . According to this formula, when Binet I.Q.'s are below 73, the WISC I.Q.'s would be higher than the Binet I.Q.'s.

Cohen and Collier (1952), Mussen, Dean and Rosenberg (1952), and Straud, Blommers and Lauber (1957) also reported correlations between Binet and WISC. It is interesting to note that in each case the Binet correlated highest with the WISC full scale, next with the WISC verbal, and lowest with the WISC performance. Further evidence however, that the WISC tends to score children within normal and upper ranges lower than the Binet is presented by Kureth, Mahr and Weisgerber (1952) in their study of 100 five and six year old children, and by Levinson (1959) in his study of 117 Jewish pre-school children. Triggs and Cartee (1953) tested 46 rather select children in the kindergarten of an independent school (Binet mean I.Q. of 124.11), and found WISC I.Q.'s to be consistently lower (full scale mean of 107.58). They concluded further that "there is a marked tendency for larger differences between Stanford-Binet and WISC I.Q.'s to be related to higher Stanford-Binet I.Q.'s" (p. 29).

The several studies previously cited seem to directly contradict the predictions of this author in his study. It should be observed however, that in each case where the Binet score was higher than the full scale WISC, the samples used were composed of subjects within the normal and/or upper ranges. This of course is not true of the present study. Also to be considered is the fact that the subjects used in the studies cited are composed of "normals," in the sense of not being delinquent children. It is felt that these differences in the type of sample used will account for differences in results, tending toward higher WISC scores as opposed to the Binet.

A study to supplement this belief is one done by Arnold and Wagner (1955), in which 50 children were drawn at random from elementary schools and it was concluded that "so far as this sample is concerned, the relationship between I.Q.'s obtained for eight-and nine-year-olds with the WISC (full scale) and Form L Binet is not significantly different from the relationship between I.Q.'s obtained on Forms L and M of the Binet" (p. 93). The verbal scale rated significantly better with the Binet than did the performance scale.

Since Arnold's sample was drawn at random, the range of I.Q.'s was probably much greater than the previous studies, and included subjects within the lower ranges.

The comparability of I.Q. scores on the WISC and Binet when applied to mentally defective children has been investigated by several authors. Nale (1951) found the rather high correlation of .909 between the WISC full scale and the Binet, Form L, for 104 defective children, while Stacey and Levin (1951) and Sloan and Schneider (1951) report correlations of .68 and .493 respectively. In general, the WISC full scale was found to score somewhat higher than the

Binet for these defective children.

Sandercock and Buller (1952) compared the WISC and Binet, Form M, I.Q.'s of 90 mentally defective children and concluded that "correlations obtained between the Stanford Binet (M) and the three WISC I.Q.'s indicated a high degree of relationship between the Binet and the WISC verbal" (p. 104).

Several of the conclusion and assumptions made by various authors were subjected to direct test by Holland (1953) who found in part:

- a. There was no significant practice effect on the WISC I.Q.'s when the Binet was given first and the median interval between the tests was seven days.
- b. There was a significant difference between the correlations of the Binet with the performance and with the verbal and full scales of the WISC (in favor of the verbal and full scales).
- c. There was no significant difference between the correlations of the Binet with the verbal and full scales of the WISC.
- d. There was no significant relationship between chronological age and the difference between Binet and WISC I.Q.'s.
- e. There was no significant relationship between Binet I.Q. and the difference between Binet and WISC I.Q.'s.

In general, the following conclusions can be drawn from these data about the comparability of the WISC and Binet I.Q.'s

1. Studies involving a variety of ages and I.Q. ranges are very consistent in showing that at least within a white American school population the WISC and Binet scores are related to a significant degree. Correlations between the Wisc full scale and the Binet are predominantly reported within the .80's.

2. The WISC scores tend to be lower than Binet scores for the same children within the middle and upper ranges and somewhat higher for defectives. This appears to be particularly true for younger children (below 10) and for

the higher Binet scores.

3. Using the Binet as a criterion, the highest correlations are found with the full scale I.Q. scores, the next highest with verbal, and the lowest with performance scores.



## CHAPTER III

### EXPERIMENTAL DESIGN AND PROCEDURE

The meaning of a "delinquent" child will be "any child who has been referred to the Cook County (Family) Court on a delinquent petition," therefore following that definition given in the Introduction of this paper. The subjects used are cases that have been referred to the psychiatric department for evaluation and recommendation. In each case, the WISC has been administered by the author in the psychiatric department. The individual scores on the Revised Stanford Binet Scale, Form L, have been obtained from the child's case record, in cases where he or she has been administered the Binet either at the Court or, at another County, City or private agency, such as the Bureau of Child Study, Institute for Juvenile Research, or Catholic Charities.

The sample used is composed of 65 delinquent children of both sexes between the ages of 10 to 15 years 11 months. For a further breakdown of the sex and race of this sample according to ages, the reader is referred to Table I, below.

TABLE I. Description of the Sex and Race of the Sample, according to ages.

<u>AGE</u>	<u>SEX</u>		<u>RACE</u>		
	M	F	White	Negro	Indian
10 to 11-11	11	1	10	2	0
12 to 13-11	15	13	16	12	0
14 to 15-11	15	10	20	4	1
Totals	41	24	46	18	1

Regarding the choice of population, all the cases referred to the psychiatric department during the time period January, 1959 to February, 1960, which have the requirements listed above, that is, the WISC administered by the author and a previous Binet I.Q. available, were used. It should be pointed out here that only those Binet I.Q.'s were used that had been administered, at the maximum, two years prior to the testing with the WISC.

There will be a breakdown of ages in the sample, and they will be distributed into three groups (ages 10 to 11 years 11 months, where N equals 12; 12 to 13 years 11 months, where N equals 28; and 14 to 15 years 11 months, where N equals 25). This is being done in an attempt to discover any difference in performance among the three age groups.

Following Glueck's study (1950) which points out that by and large, delinquents score lower on the verbal section of the Wechsler Intelligence Scale as opposed to the performance section, a statistical analysis will be made in an attempt to verify this on the WISC in this sample. That is, there will be tests for the significance of mean changes, utilizing the small sample or "t" technique for correlated means. For the purposes of this study, a P of .05 represents a statistically significant difference. An investigation will also be made regarding the difference between the scores obtained on the verbal, performance, and full scale I.Q.'s on the WISC, and those obtained on the Binet. Means, standard deviations, and inter-correlations will also be reported for these I.Q.'s, as well as for the three sub-groups mentioned above. The computation of r will be in terms of step-interval deviations from an arbitrary origin, utilizing the Pearson product moment correlation coefficient. This will all be put in table form.

## CHAPTER IV

### RESULTS AND DISCUSSION

The results of the comparison between the verbal and performance sections of the WISC for the total population and three age groups can be found in Table II below. This shows the inter-correlations between these sections, and it is interesting to note that within the three sub-groups, the correlation increases as N becomes larger. This is not true for the total population however, which may be due to the very low  $r$  at age level 10 to 11 years 11 months. In any case, the  $r$ 's are all quite low.

TABLE II. Correlations of Verbal I.Q. with Performance I.Q. for Total Population and Three Age Groups (WISC).

	Total population	Ages 10 to 13-11	Ages 12 to 13-11	Ages 14 to 15-11
$r$	.558	.546	.745	.742

Table III below shows the  $t$  scores and the corresponding  $P$  values for the difference between the means for the WISC verbal and performance I.Q.'s. As can be observed, there were no significant differences found. The greatest difference between the means in terms of actual number occurred at age level 14 to 15-11, in which the difference was -3.4 points; this, as was previously stated, was not significant.

Comparison of the Binet I.Q. with the three WISC I.Q.'s for the total population and three age groups yielded the following results.

Table IV below shows the inter-correlations between the two tests. For

TABLE III. Mean Verbal I.Q. minus mean Performance I.Q.

<u>DIFFERENCE</u> Mean verbal I.Q. minus mean per- formance I.Q.	<u>VERBAL I.Q.</u>		<u>PERFORMANCE I.Q.</u>		<u>DIFFERENCE</u>		
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>	<u>SMD</u>	<u>t</u>	<u>P</u>
Total pop. (N equals 65)	78.09	13.2	79.98	16.19	1.75	1.08	.3
Ages 10 to 11-11 (N equals 12)	78.08	9.88	80.33	14.22	4.29	0.52	.7
Ages 12 to 13-11 (N equals 28)	75.78	9.45	76.11	14.22	2.08	0.158	.9
Ages 14 to 15-11 (N equals 25)	80.68	16.62	84.08	18.22	2.23	1.52	.2

the total population, the full scale WISC I.Q. correlated highest with the Binet, the verbal I.Q. was next, and the performance I.Q. was lowest. This is not the case for the three sub-groups however.. The verbal I.Q. correlates highest with the Binet in the age groups 10 to 11-11 and 14 to 15-11; the full scale I.Q. is next highest, and the performance I.Q. is lowest. The highest correlation of all occurred between the verbal and Binet I.Q.'s at the age level 14 to 15-11 (.933).

TABLE IV. Correlations of Binet I.Q. with WISC Verbal, Performance, and Full Scale I.Q.'s for the Total Population and Three Age Groups.

WISC	TOTAL POP.	AGES 10 to 11-11	AGES 12 to 13-11	AGES 14 to 15-11
VERBAL	.789	.689	.767	.933
PERFORM- ANCE	.737	.467	.784	.745
FULL SCALE	.842	.547	.878	.899

The test for the significance between the means of the Binet I.Q. and the WISC verbal I.Q. is reported in Table V. At age level 10 to 11-11, the difference was found to be significant at the .05 level of confidence. This was not expected however, and may be partially explained in terms of the small N in this sub-group. There were no significant differences found however, for either the other two age groups, or the total population.

The test for the difference between the mean Binet and mean performance I.Q.'s (Table VI) yielded very significant results. The differences for the

TABLE V. Mean Binet I.Q. minus mean Verbal I.Q.

<u>DIFFERENCE</u> Mean Binet I.Q. minus mean Verbal I.Q.	<u>BINET I.Q.</u>		<u>VERBAL I.Q.</u>		<u>DIFFERENCE</u>		
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>	<u>S<sub>ED</sub></u>	<u>t</u>	<u>P</u>
Total pop. (N equals 65)	75.88	14.46	78.09	13.20	1.13	1.95	.1
Ages 10 to 11-11 (N equals 12)	71.58	11.38	78.08	9.88	2.57	2.53	.05
Ages 12 to 13-11 (N equals 28)	74.14	13.94	75.78	9.45	1.75	0.937	.4
Ages 14 to 15-11 (N equals 25)	79.76	16.76	80.68	16.62	1.23	0.748	.5

TABLE VI. Mean Binet I.Q. minus mean Performance I.Q.

<u>DIFFERENCE</u> Mean Binet I.Q. minus mean Per- formance I.Q.	<u>BINET I.Q.</u>		<u>PERFORMANCE I.Q.</u>		<u>DIFFERENCE</u>		
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>	<u>Std</u>	<u>t</u>	<u>P</u>
Total pop. (N equals 65)	75.88	14.46	79.98	16.19	1.43	2.867	.01
Ages 10 to 11-11 (N equals 12)	71.58	11.38	80.33	14.22	4.04	2.18	.05
Ages 12 to 13-11 (N equals 28)	74.14	13.94	76.11	14.22	1.78	1.10	.3
Ages 14 to 15-11 (N equals 25)	79.76	16.76	84.08	18.22	2.55	1.69	.1

total population was significant at the .01 level of confidence. The .05 level of significance was obtained when comparing the Binet and WISC performance at age level 10 to 11-11; the differences were not significant for the other two age groups.

The mean Binet I.Q. compared to the mean full scale I.Q. on the WISC, showed no significant results in terms of differences. This can be seen in Table VII below.

Generally speaking then, regarding the population as a whole, the Binet correlated highest with the WISC full scale I.Q., next highest with the WISC verbal I.Q. (which was very close to the full scale), and lowest with the WISC performance. In each case, the mean Binet was lower than the mean WISC verbal, performance, or full scale I.Q.'s. It is also interesting to note that in each sub-group, the mean full scale I.Q. was lower than both the mean verbal and performance I.Q.'s. In explanation, it should be mentioned here that the WISC full scale I.Q. is not an average of the verbal and performance scores. There are however, different comparative norms for each age level and each of the three I.Q.'s given. It is therefore understandable that the full scale I.Q. can be lower than both the verbal and performance I.Q.'s.

The only significant results in terms of differences between the means for the total population, occurred in the comparison of the Binet with the WISC performance section. This difference was found to be significant at the .01 level of confidence.

Regarding the comparison of the three age groups, it is interesting to note that an increase in age corresponds to an increase in correlation between the WISC and the Binet. That is, the age group 14 to 15-11 has the highest



TABLE VII. Mean Binet I.Q. minus mean Full Scale I.Q.

<u>DIFFERENCE</u> Mean Binet I.Q. minus mean full scale I.Q.	<u>BINET I.Q.</u>		<u>FULL SCALE I.Q.</u>		<u>DIFFERENCE</u>		<u>P</u>
	<u>M</u>	<u>S.D.</u>	<u>M</u>	<u>S.D.</u>	<u>S<sub>MD</sub></u>	<u>t</u>	
Total pop. (N equals 65)	75.88	14.46	76.92	14.32	1.11	0.936	.4
Ages 10 to 11-11 (N equals 12)	71.58	11.38	76.92	12.17	3.38	1.58	.2
Ages 12 to 13-11 (N equals 28)	74.14	13.94	73.64	11.92	1.28	0.39	.7
Ages 14 to 15-11 (N equals 25)	79.76	16.76	80.52	17.16	1.55	0.49	.7

correlation, the age group 12 to 13-11 the next highest, and the age group 10 to 11-11 the lowest, for each of the three WISC I.Q.'s when compared to the Binet I.Q.

Children in the age group 10 to 11-11 scored higher on both the WISC verbal and performance sections, when compared to the Binet. These differences were significant at the .05 level of confidence. There were no other statistically significant results concerning the comparison of the three age groups.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

This study compared the WISC verbal, performance, and full scale I.Q.'s with the I.Q. obtained on the Revised Stanford Binet Scale, Form L, utilizing a sample of 65 delinquent children. Its purposes were twofold: (a) an attempt was made to verify previous findings that delinquents tend to score lower on the verbal section of the Wechsler Scale, as opposed to the performance section, and (b) to determine the differences in performance (if any) among delinquents, utilizing WISC and Binet in the total population and three age groups. Intercorrelations and t scores were computed, and these were put in table form.

The following statements are a summary of the findings of this study.

1. Although in each case the mean performance I.Q. was greater than the mean verbal I.Q., there were no significant differences found here.
2. The Binet I.Q. correlated highest with the WISC full scale I.Q. (.82), next highest with the WISC verbal I.Q. (.789), and lowest with the WISC performance I.Q. (.73).
3. The differences between the Binet I.Q. and the WISC performance I.Q. was found to be significant at the .01 level of confidence, for the total pop.
4. In each case, the mean Binet I.Q. was found to be lower than either the mean WISC verbal, performance, or full scale I.Q.'s.
5. Corresponding to an increase in age (from age 10 to 15-11), there is a corresponding increase in correlation for each of the three WISC I.Q.'s when

compared to the Binet I.Q., the WISC I.Q.'s being higher in each case.

The final analysis of these data tends to indicate that delinquent children do score higher in the performance section of the WISC when compared to the verbal section; they also score higher on the WISC full scale I.Q. when compared to the Binet I.Q., this difference becoming smaller as age increases. These findings were not found to be significant however.

What can the Psychologist whose duty it is to examine the intelligence of delinquents conclude? This author feels that it depends upon the purpose involved in the administration of the examination. If an estimate is desired of the individuals general level of intellectual functioning for one reason or another, since the correlation found here between the WISC and Binet was .824, perhaps either test could be used. If, however, the examination is being administered to determine the delinquents eligibility for the filing of a petition alleging mental deficiency, a problem immediately arises. The fact is that the delinquents scored higher on the WISC in comparison to the Binet in this study. Even though the results were not statistically significant, it should be recalled that the mean I.Q., being within the lower limits of the dull normal range, tended to decrease the levels of significance, due to the increased S.D. With these ideas in view, and also considering that a difference of one or two points (according to law) can be the deciding factor regarding commitment, which test will the Psychologist use as the measuring instrument? This decision is, of course, left to the individual.

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APPROVAL SHEET

The thesis submitted by William S. McGurk has been read and approved by a board of three members of the Department of Psychology.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

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