

DOCUMENT RESUME

ED 047 329

CG 006 200

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TITLE Relationship Between Pattern of Achievement and Self-Ideal Congruence.
INSTITUTION Ontario Inst. for Studies in Education, Toronto.
PUB DATE Feb 71
NOTE 22p.; Paper presented at the American Educational Research Association Convention in New York, New York, February 4-7, 1971

EDRS PRICE MF-\$0.65 HC Not Available from EDRS.
DESCRIPTORS *Academic Achievement, Academic Performance, *Achievement, Achievement Rating, High Achievers, Low Achievers, *Self Concept, *Self Congruence, Self Esteem, Self Evaluation, *Underachievers

ABSTRACT

This study investigates the relationship between pattern of achievement and self-ideal congruence of 408 ninth grade boys and girls. Underachievers, average achievers and overachievers were determined on the basis of whether their final average marks were higher or lower than had been predicted. Prediction criteria are presented. Self-ideal congruence was inferred from: (1) discrepancies between placements of ratings on the perceived-self and ideal-self scales; and (2) correlations between ratings on the perceived-self and ideal-self scales (Gill and D'Oyley, 1968). The finding that low level of self-ideal congruence is commonly associated with underachievement suggests that the concept of self-ideal congruence is potentially relevant in the identification and remediation of underachievement. The author emphasizes the effectiveness and simplicity of the instrument and procedures utilized in the study. [Not available in hard copy due to marginal legibility of original document.] (11)

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RELATIONSHIP BETWEEN PATTERNS OF ACHIEVEMENT
AND SELF-IDEAL CONFORMANCE

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American Educational Research Association
Annual Meeting, New York City, New York, February 1971

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RELATIONSHIP BETWEEN PATTERN OF ACHIEVEMENT AND SELF-IDEAL CONGRUENCE

On the basis of self-concept theory of academic performance (Brookover, 1959; Lecky, 1951; Rogers, 1959), a significant relationship may be postulated to exist between pattern of achievement (defined here as under-achievement, average achievement and over-achievement) and self-ideal congruence. Some investigations reported in the literature lend support to this hypothesis (Coopersmith, 1959; Hanlen *et. al.*, 1954; Perkins, 1958; Turner and Vanderlippe, 1958). The present study was designed to investigate the relationship between pattern of achievement and self-ideal congruence. For the purpose of this study self-ideal congruence was inferred from (a) discrepancies between placements of ratings on the perceived-self and ideal-self scales and (b) correlations between ratings on the perceived-self and ideal-self scales (Gill and D'Oyley, 1968).

SAMPLE SELECTION

The study sample (consisting of under-achievers, average achievers and over-achievers) was selected from 1,424 Grade 9 students who were enrolled in the Art and Science courses in five high schools in the City of Toronto. Their scores on the Canadian Academic Aptitude Test were used to develop regression equations for predicting their final average marks by school and sex. The standard error of estimate was used to establish limits. Under- and over-achievers were defined as those students whose final average marks were, respectively, lower or higher than their predicted marks by at least one standard error of estimate. Students showing minimum discrepancies

were designated average achievers. The selection procedure permitted the control of mental ability (Tables 1 and 2) and the isolation of subgroups that were significantly different with regard to final average marks. (Tables 3 and 4). The selected groups were also found to be similar with respect to chronological age.

In the sample, 68 boys and 68 girls were selected in each achievement group. Each group was further divided into four ability levels according to the students' I.Q.'s as measured by the Henmon-Nelson Test of Mental Ability.

METHOD

Two measures of self-ideal congruence, namely, discrepancy scores and self-ideal correlations, were obtained for each student included in the criterion groups. The first measure was based on absolute differences between students' ratings on the perceived-self and ideal-self scales (Gill and D'Oyley, 1968), and the second upon correlations between the perceived-self and ideal-self ratings. Means and standard deviations of discrepancy scores were computed for each subgroup determined by pattern of achievement and ability level. Two-way analysis of variance technique was applied to determine the significance of the mean differences among the various subgroups. A separate analysis was carried out for each sex. The analysis of discrepancy scores was continued further in terms of their qualitative nature and their deviations from the normative mean.

In order to obtain another independent criterion of self-ideal congruence, a correlation coefficient between ratings on the perceived-self and ideal-self was computed for each student included in the study. The range and median of the correlations were computed for each of the achievement groups and for the total group. The size of the self-ideal

correlation in comparison with the median correlation of the total group was used to get an index of the level of self-ideal congruence. Chi square tests of independence were set up to determine the relationship between pattern of achievement and level of self-ideal congruence.

Further details of the analyses carried out are given below along with the hypotheses that were statistically tested.

Self-Ideal Congruence as Inferred from
Discrepancy Scores and its Relationship
with Pattern of Achievement

Hypothesis 1. The under-, average, and over-achievers show significant differences among themselves with respect to their self-ideal congruence as measured by discrepancy scores. It is predicted that under-achievers tend to obtain higher means on discrepancy scores than over-achievers.

A discrepancy score was computed for each student by summing the absolute differences of his perceived- and ideal-self ratings on the Self-Concept Scale. Means and standard deviations of discrepancy scores for the various subgroups are presented in Table 5 and 7 for boys and girls respectively.

Boys. As expected, the mean of discrepancy scores for under-achieving boys (52.3) was highest, followed by those for average (42.4) and over-achievers (37.7). The means of discrepancy scores for under-, average, and over-achievers were found to be significantly different at the .01 level (Table 6). A consistent rise in the mean of discrepancy scores was noted with increase in ability level, suggesting an inverse relationship between self-ideal congruence and mental ability. The analysis showed that the mean differences among groups of various ability levels were significant beyond the .01 level (Table 6). This finding is a reflection of the fact that boys' concepts of ideal-self were found to be positively

related to their mental ability; however, no such relationship was observed for their concepts of perceived-self (Cill, 1968). Therefore, the discrepancy between the perceived- and ideal-self scores would also tend to rise with mental ability.

The interaction between ability level and achievement pattern was found to be statistically significant at the .01 level. As indicated in Fig. 1, the lines representing the mean scores of under-, average, and over-achievers in the various ability levels cannot be considered to be parallel to one another within the limits of random sampling. The shapes of the graphs for average and over-achievers were somewhat similar, and parallel for the first three quarters of ability level after which they converged. The drop in the mean scores of under-achievers in the upper quarter of ability level is also noteworthy.

Girls. The analysis of discrepancy scores for girls also suggested the possibility of significant relationship between the pattern of achievement and self-ideal congruence. As shown in Table 7, the mean of discrepancy scores for under-achieving girls (52.1) was highest, followed by those for average (46.3) and over-achievers (38.9). It may be mentioned here that high discrepancy scores were assumed to be indicative of low self-ideal congruence. The F ratio (7.91) is significant beyond the .01 level (Table 8). Unlike that for boys, the discrepancy between perceived- and ideal-self for girls was not significantly related to mental ability. Although the mean of discrepancy scores for girls (45.8) was somewhat higher than the mean score for boys (44.1), the mean difference was not statistically significant. The null hypothesis of no significant differences among the

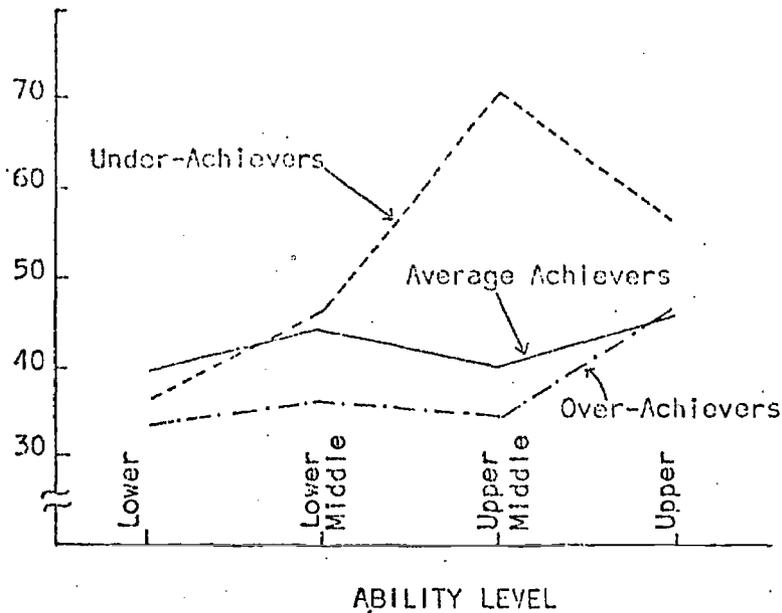


Fig. 1.--Means of discrepancy scores between perceived-self and ideal-self for under-, average, and over-achieving boys at each level of mental ability showing interaction between achievement pattern and mental ability.

mean scores of under-, average, and over-achievers was rejected for both sexes.

Hypothesis 2. Significant differences exist among under-, average, and over-achievers with respect to the deviation of their discrepancy scores from the group mean.

In order to test the above hypothesis, the analysis of discrepancy scores was continued in terms of the deviation from the normative mean of the total number of students included in the study. Scores closer to the total mean were presumed to be indicative of high self-ideal consistency, and those further away of low self-ideal congruence. On the basis of the magnitude of the deviation of individual discrepancy scores from the group mean, three deviation groups were identified within each achievement pattern. The deviation groups were:

- 1) Discrepancy score greater than the group mean by at least one standard deviation;

- 2) Discrepancy score less than the group mean by at least one standard deviation;
- 3) Discrepancy score within the range of \pm one standard deviation from the mean.

Boys. As indicated in Table 9, the percentage of students with discrepancy scores falling within \pm one standard deviation of the mean was highest for over-achievers (82%), followed by that for average (76%) and under-achievers (52%). On the other hand, students with discrepancy scores greater than the total mean were represented largely among the under-achievers (29%) and only lightly among the over-achievers (3%). The under-, average, and over-achievers did not show marked variations among themselves with respect to discrepancy scores lower than the group mean. The significance of the apparent relationship between pattern of achievement and deviation of discrepancy scores was determined by applying the chi square technique. The computed value of chi square (28.41, $df = 4$) is significant beyond the .01 level.

Girls. The pattern of distribution for girls (Table 10) was somewhat different from that noted for boys. The percentage of students whose scores fell within \pm one standard deviation from the mean was highest for average achievers (78%), followed by that for over- (71%) and under-achievers (63%). The proportion of students with discrepancy scores less than the mean (indicating high self-ideal congruence) was higher for over-achievers (22%) than for under-achievers (10%). Students with discrepancy scores greater than the mean were represented very lightly among over-achievers (7%), but more heavily among under-achievers (27%). The significance of the observed relationship between achievement pattern and deviation of discrepancy scores was tested by performing the chi square test of independence. The null hypothesis of no relationship between the two modes of classification was rejected at the .01 level

(Table 10). Hypothesis 2 was therefore sustained for both boys and girls.

Nature of the Discrepancy between Perceived-Self and Ideal-Self and its Relationship with Patterns of Achievement

The foregoing analysis of the discrepancy scores failed to unfold the qualitative nature of the self-ideal discrepancies. In other words, the data did not reveal whether the larger self-ideal discrepancies were due more to high ratings on the ideal-self scale and low ratings on the perceived-self scale or the same difference obtained by higher ratings on the perceived-self than the ideal-self, or a combination of both. In order to obtain some indication of the qualitative nature of the discrepancy scores, the responses on the perceived-self and ideal-self items were compared in terms of their similarity and non-similarity. The total number of item pairs were classified into three categories:

- 1) Perceived higher than ideal;
- 2) Perceived lower than ideal;
- 3) Perceived and ideal the same.

Items related to school program (six in total) were not taken into account in determining self-ideal congruence. Thus the total number of comparisons possible per student was 59, resulting in a total of 12,036 comparisons for each sex.

Hypothesis 3. There are significant differences among under-, average, and over-achievers with respect to the nature of the relationship between perceived-self and ideal-self. It is predicted that the proportion of items showing perfect consistency between the perceived- and ideal-self scales is higher for over-achievers than for under-achievers.

In order to test Hypothesis 3, the total number of items compared were classified according to the respondent's pattern of achievement

and the nature of the relationship between perceived-self and ideal-self. As indicated in Tables 11 and 12, about 42% of the items showed identical ratings on the perceived-self and ideal-self scales. Somewhat larger proportions of items (44% for boys and 50% for girls) were rated lower on the perceived-self than the ideal-self. The proportion of items with higher ratings on the perceived-self was only 14% for boys and 8% for girls.

As expected, the percentage of items showing similarity of respondent's ratings on the perceived- and ideal-self scales was highest for over-achievers and lowest for under-achievers. This finding was true of both sexes. On the other hand, the proportion of items with discrepancies resulting from lower perceived-self ratings than ideal-self ratings was highest among under-achievers, then average and over-achievers. Again, this finding was true of each sex; the discrepancies among the relative proportions were, however, more marked for boys than girls. About 20% of the item sets for over-achieving boys were rated higher on the perceived-self scale than the ideal-self scale, as compared to only 10% and 12% for average and under-achieving boys (Table 11). For girls, however, the sets of items with higher ratings on the perceived-self than the ideal-self scale were almost evenly distributed among the three patterns of achievement. The computed chi square values of 348.56 for boys and 100.33 for girls are significant beyond any doubt of chance.

Self-Ideal Congruence as indicated by
Self-Ideal Correlation and its Relationship
with Pattern of Achievement

Another independent criterion of self-acceptance or self-ideal congruence was obtained by correlating each student's ratings on statements descriptive

of his perceived-self with his ratings on items similar in content concerning the ideal-self. The correlation coefficient between placement values assigned by a single individual is referred to as self-ideal correlation (Bylie, 1963). The self-ideal correlation was considered to give some measure of an individual's self-ideal congruence.

The following hypothesis was formulated:

Hypothesis 4. The pattern of achievement is significantly related to the level of consistency, or congruence, between the perceived-self and ideal-self inferred from the size of the self-ideal correlation. It is predicted that students with self-ideal correlations equal to or higher than the group median are represented predominantly among over-achievers. Conversely, students with self-ideal correlations lower than the group median are expected to be lightly represented among over-achievers and heavily among under-achievers.

Accordingly, a correlation coefficient (product-moment r) was computed for each student included in the study sample. These correlations were classified according to pattern of achievement and summarized in terms of their range, median, and number of significant and negative correlations for under-, average, and over-achievers in Tables 13 (boys) and 14 (girls). As indicated in these tables, the median value of correlations for the combined groups of boys as well as girls was .37. The range of correlations for boys (-.15 to .84) was somewhat lower than for girls (-.23 to .95).

The medians of self-ideal correlations for the over-achievers (.43 for each sex) were higher than those obtained for the under-achievers (.22 for boys and .29 for girls). Further, the number of significant correlations was also highest for over-achievers. Negative self-ideal correlations, implying complete lack of harmony between the perceived-self and ideal-self, were more commonly associated with under-achievement rather than over-achievement (13 as opposed to 1). These data clearly indicate

that on a continuum of self-ideal congruence as inferred from the size of the self-ideal correlations, the under-achievers ranked much lower than the over-achievers.

The analysis of the correlational data was continued further in an attempt to test the null hypothesis as an alternative to Hypothesis 4. The self-ideal correlations were used to obtain some index of the level of congruence between an individual's perceived-self and ideal-self. A comparison of an individual's self-ideal correlation with the median correlation of the group permitted some indication of the level of consistency between his perceived-self and ideal-self. Thus two levels of consistency, namely, "lower than the median" and "equal to or higher than the median" of the group, were identified. The students included in the study sample were further classified according to pattern of achievement and level of congruence between perceived-self and ideal-self in order that the relationship between these two modes of classification could be examined.

As indicated in Tables 15 and 16 the self-ideal correlations for 68 percent of the under-achievers were lower than the median correlations of the total group, whereas the percentages of over-achievers in this category were only 38 and 40 for boys and girls respectively. As expected, students with self-ideal correlations equal to or higher than the group median were most predominant among over-achievers, suggesting a higher level of self-ideal congruence for over-achievers. The chi square procedure was carried out to determine the statistical significance of the apparent relationship between pattern of achievement and level of congruence between the perceived-self and ideal-self. The null hypothesis of no relationship between these two variables was rejected at the .01 level for each sex. Hypothesis 4 was therefore sustained.

1. Significant differences were found between under-, average and over-achievers with respect to their mean discrepancy scores. The under-achievers tended to obtain higher mean scores than the over-achievers. This finding was true of both sexes.

2. For the boys, a significant and positive relationship was found to exist between discrepancy scores and mental ability.

3. The pattern of achievement was significantly related to the deviation of discrepancy scores from the group mean. The fact that students with discrepancy scores greater than the group mean were represented more predominantly among under-achievers than among over-achievers implies a higher level of self-ideal congruence for the latter group. The opposite trend (discrepancy scores lower than the group mean being representative more of over-achievers than under-achievers), however, was true only of girls.

4. The nature of the relationship between perceived-self and ideal-self, defined in terms of the number of items showing identical or discrepant ratings, was found to be significantly related to the pattern of achievement. The proportion of items showing similarity of respondents' ratings on the perceived-self and ideal-self scales was higher among over-achievers than among under-achievers.

5. The pattern of achievement was significantly related to the level of congruence between the perceived-self and ideal-self as indicated by the size of self-ideal correlations. Students with self-ideal correlations equal to or higher than the group median were represented heavily among over-achievers and students with low self-ideal correlations were represented more predominantly among under-achievers.

CONCLUSION

The present investigation has shown that the pattern of achievement, taken in terms of discrepancy between predicted and actual levels of achievement, is significantly related to self-ideal congruence defined in terms of discrepancy scores and self-ideal correlation. The finding that low level of self-ideal congruence was commonly associated with under-achievement suggests that the concept of self-ideal congruence is potentially relevant in the identification and remediation of under-achievement. The procedures used for assessing self-ideal congruence place the nature of the self-concept in sufficiently concrete terms to be meaningful to school teachers and guidance counsellors.

The instrument and procedures used in the study can be employed for assessment of non-cognitive learning pertaining to self-ideal congruence. Such procedures built into the testing program can help to determine individual differences and learner needs in the affective domain. School personnel operating in such a frame of reference would be concerned with providing appropriate learning environments to promote and foster adequate and realistic self-concepts in students. Also, procedures used for measuring self-ideal congruence can contribute to the evaluation of programmes designed to develop realistic self-concepts.

Furthermore, the consistency of findings in the hypothesized direction lends support to the theory behind the study as well as to the construct validity of the instrument used in the study (Cronbach and Meehl, 1955). The results also provide statistical evidence pertaining to the discriminant validity of the self-concept scale in differentiating students showing varied patterns of achievement.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF IQS^a FOR UNDER-, AVERAGE, AND OVER-ACHIEVERS ACCORDING TO SEX OF STUDENT

| Achievement Group | Boys ^b | | | Girls | | |
|-------------------|-------------------|--------|-----------|----------|--------|-----------|
| | <u>N</u> | Mean | <u>SD</u> | <u>N</u> | Mean | <u>SD</u> |
| Under-Achiever | 66 | 112.01 | 9.57 | 62 | 113.61 | 10.68 |
| Average Achiever | 68 | 112.35 | 9.14 | 68 | 113.64 | 9.98 |
| Over-Achiever | 64 | 113.05 | 11.03 | 67 | 113.61 | 11.51 |
| Combined Group | 198 | 112.46 | 9.98 | 197 | 113.62 | 10.69 |

^aAs measured by Henmon-Nelson Test of Mental Ability - Form A.

^bFor a few students designated as under- and over-achievers IQs were not available.

TABLE 2

TWO-WAY ANALYSIS OF VARIANCE OF IQS AS MEASURED BY HENMON-NELSON TEST OF MENTAL ABILITY - FORM A

| Source of Variation | <u>df</u> | Sum of Squares | Mean Square | <u>F</u> | Significance of <u>F</u> Ratio |
|---------------------|-----------|----------------|-------------|----------|--------------------------------|
| Among Groups: | 5 | 168.74 | 33.75 | .32 | n.s. |
| Type of Student | 2 | 19.75 | 9.88 | .10 | n.s. |
| Sex | 1 | 132.82 | 132.82 | 1.24 | n.s. |
| Interaction | 2 | 16.17 | 8.09 | .08 | n.s. |
| Within | 389 | 41,595.53 | 106.93 | | |
| Total | 394 | 41,764.27 | | | |

TABLE 3

MEANS AND STANDARD DEVIATIONS OF FINAL AVERAGE MARKS FOR UNDER-, AVERAGE, AND OVER-ACHIEVERS ACCORDING TO SEX OF STUDENT

| Achievement Group | Boys | | | Girls | | |
|-------------------|----------|-------|-----------|----------|-------|-----------|
| | <u>N</u> | Mean | <u>SD</u> | <u>N</u> | Mean | <u>SD</u> |
| Under-Achiever | 68 | 41.40 | 7.91 | 68 | 45.25 | 7.11 |
| Average-Achiever | 68 | 60.94 | 6.01 | 68 | 62.07 | 6.01 |
| Over-Achiever | 68 | 75.19 | 6.98 | 68 | 75.41 | 6.90 |
| Combined Group | 204 | 59.18 | 15.56 | 204 | 60.91 | 14.07 |

TABLE 4

TWO-WAY ANALYSIS OF VARIANCE OF FINAL AVERAGE MARKS

| Source of Variation | <u>df</u> | Sum of Squares | Mean Square | <u>F</u> | Significance of <u>F</u> Ratio |
|---------------------|-----------|----------------|-------------|----------|--------------------------------|
| Among Groups: | 5 | 70,522.79 | 14,104.56 | 295.94 | <.001 |
| Type of student | 2 | 69,972.81 | 34,986.41 | 734.08 | <.001 |
| Sex | 1 | 307.15 | 307.15 | 6.44 | <.05 |
| Interaction | 2 | 242.83 | 121.42 | 2.55 | n.s. |
| Within | 402 | 19,160.42 | 47.66 | | |
| Total | 407 | 89,683.21 | | | |

TABLE 5

MEANS AND STANDARD DEVIATIONS OF DISCREPANCY SCORES^a BY
ABILITY LEVEL AND PATTERN OF ACHIEVEMENT - BOYS

| Ability Level | Under- Achiever (N=68) | | Average Achiever (N=68) | | Over- Achiever (N=68) | | Combined Group (N=204) | |
|--------------------------------|------------------------------|------|-------------------------------|------|-----------------------------|------|------------------------------|------|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Lower Quarter (N=51) | 36.1 | 24.9 | 39.8 | 15.1 | 34.9 | 17.3 | 36.9 | 19.3 |
| Middle Quarter (N=51) | 46.6 | 19.6 | 44.5 | 18.0 | 35.4 | 10.9 | 42.2 | 17.0 |
| Upper-Middle Quarter (N=51) | 70.4 | 23.5 | 40.0 | 17.0 | 34.6 | 12.2 | 48.3 | 23.9 |
| Upper Quarter (N=51) | 56.0 | 23.7 | 45.2 | 17.9 | 45.9 | 12.4 | 49.0 | 18.9 |
| Combined Levels (N=204) | 52.3 | 25.8 | 42.4 | 16.9 | 37.7 | 14.0 | 44.1 | 20.4 |

^aTaken in terms of the absolute difference between raw scores on the perceived-self and ideal-self scales.

TABLE 6

TWO-WAY ANALYSIS OF VARIANCE OF DISCREPANCY SCORES^a - BOYS

| Source of Variation | df | Sum of Squares | Mean Square | F Ratio |
|---------------------|-----|----------------|-------------|---------|
| Among Groups: | 11 | 20,312.10 | 1,846.55 | 5.54** |
| Ability Level | 3 | 4,968.88 | 1,656.29 | 4.97** |
| Achievement Pattern | 2 | 7,549.89 | 3,774.95 | 11.32** |
| Interaction | 6 | 7,793.33 | 1,298.89 | 3.90** |
| Within Groups | 192 | 64,007.53 | 333.37 | |
| Total | 203 | 84,319.63 | | |

** Significant beyond .01 level

^aTaken in terms of the absolute difference between raw scores on the perceived-self and ideal-self scales.

TABLE 7

MEANS AND STANDARD DEVIATIONS OF DISCREPANCY SCORES^a BY
ABILITY LEVEL AND PATTERN OF ACHIEVEMENT - GIRLS

| Ability Level | Under-Achiever (N=68) | | Average Achiever (N=68) | | Over- Achiever (N=68) | | Combined Group (N=204) | |
|----------------------------|--------------------------|------|-------------------------------|------|-----------------------------|------|------------------------------|------|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Lower Quarter (N=51) | 52.5 | 20.6 | 39.5 | 16.6 | 40.2 | 14.6 | 44.1 | 18.1 |
| L-Middle Quarter (N=51) | 52.7 | 28.4 | 50.4 | 17.6 | 36.8 | 18.4 | 46.6 | 22.7 |
| U-Middle Quarter (N=51) | 55.1 | 20.7 | 45.7 | 19.4 | 41.8 | 20.3 | 47.6 | 20.5 |
| Upper Quarter (N=51) | 47.9 | 18.0 | 49.7 | 18.2 | 36.9 | 15.7 | 44.8 | 17.9 |
| Combined Levels (N=204) | 52.1 | 21.9 | 46.3 | 18.1 | 38.9 | 17.1 | 45.8 | 19.8 |

^aTaken in terms of the absolute difference between raw scores on the perceived-self and the ideal-self scales.

TABLE 8

TWO-WAY ANALYSIS OF VARIANCE OF DISCREPANCY SCORES^a - GIRLS

| Source of Variation | df | Sum of Squares | Mean Square | F-Ratio |
|---------------------|-----|----------------|-------------|---------|
| Among Groups: | 11 | 7,972.75 | 724.80 | 1.94* |
| Ability Level | 3 | 390.52 | 130.17 | .35 |
| Achievement Pattern | 2 | 5,906.39 | 2,953.20 | 7.91** |
| Interaction | 6 | 1,675.84 | 279.31 | .75 |
| Within Groups | 192 | 71,653.42 | 373.18 | |
| Total | 203 | 79,626.17 | | |

*Significant at .05 level

** Significant at .01 level

^aTaken in terms of the absolute difference between raw scores on the perceived-self and the ideal-self scales.

TABLE 9

CLASSIFICATION OF STUDENTS ACCORDING TO PATTERN OF ACHIEVEMENT
AND DEVIATION OF DISCREPANCY SCORE^a FROM THE MEAN - BOYS

| Deviation | Under- Achiever | | Average Achiever | | Over- Achiever | | Combined Group | |
|---|--------------------|-----|---------------------|-----|-------------------|-----|-------------------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Greater than Mean ^b | 20 | 29 | 4 | 6 | 2 | 3 | 26 | 13 |
| Less than Mean ^b | 13 | 19 | 12 | 18 | 10 | 15 | 35 | 17 |
| within [†] one <u>SD</u> of Mean | 35 | 52 | 52 | 76 | 56 | 82 | 143 | 70 |
| Total | 68 | 100 | 68 | 100 | 68 | 100 | 204 | 100 |

df = 4

 $\chi^2 = 28.41$

p < .01

^aTaken in terms of the absolute difference between raw scores on the perceived-self and ideal-self scales.

^bBy one standard deviation or more

TABLE 10

CLASSIFICATION OF STUDENTS ACCORDING TO PATTERN OF ACHIEVEMENT
AND DEVIATION OF DISCREPANCY SCORE^a FROM THE MEAN - GIRLS

| Deviation | Under- Achiever | | Average Achiever | | Over- Achiever | | Combined Group | |
|---|--------------------|-----|---------------------|-----|-------------------|-----|-------------------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Greater than Mean ^b | 18 | 27 | 10 | 15 | 5 | 7 | 33 | 16 |
| Less than Mean ^b | 7 | 10 | 5 | 7 | 15 | 22 | 27 | 13 |
| within [†] one <u>SD</u> of Mean | 43 | 63 | 53 | 78 | 48 | 71 | 144 | 71 |
| Total | 68 | 100 | 68 | 100 | 68 | 100 | 204 | 100 |

df = 4

 $\chi^2 = 15.07$

p < .01

^aTaken in terms of the absolute difference between raw scores on the perceived-self and ideal-self scales.

^bBy one standard deviation or more

TABLE 11

CLASSIFICATION OF ITEMS ACCORDING TO RESPONDENT'S PATTERN OF
ACHIEVEMENT AND NATURE OF RELATIONSHIP BETWEEN
PERCEIVED-SELF AND IDEAL-SELF - BOYS

| Nature of Relationship | Under-Ach. | | Average-Ach. | | Over-Ach. | | Total | |
|---|-------------------|-----|--------------|-----|-----------------|-----|--------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Perceived higher than ideal | 430 | 12 | 386 | 10 | 755 | 20 | 1,571 | 14 |
| Perceived lower than ideal | 1,864 | 52 | 1,766 | 47 | 1,254 | 33 | 4,884 | 44 |
| Perceived and ideal same | 1,314 | 36 | 1,632 | 43 | 1,763 | 47 | 4,709 | 42 |
| Number of Items Compared | 3,608 | 100 | 3,784 | 100 | 3,772 | 100 | 11,164 | 100 |
| Number of Items not Compared ^a | 404 | | 228 | | 240 | | 872 | |
| Total Number of Possible Comparisons | 4,012 | | 4,012 | | 4,012 | | 12,036 | |
| <u>df</u> = 4 | $\chi^2 = 348.56$ | | | | <u>p</u> < .001 | | | |

^aFor these items student's response on either or both of the scales was missing.

TABLE 12

CLASSIFICATION OF ITEMS ACCORDING TO RESPONDENT'S PATTERN OF
ACHIEVEMENT AND NATURE OF RELATIONSHIP BETWEEN
PERCEIVED-SELF AND IDEAL-SELF - GIRLS

| Nature of Relationship | Under-Ach. | | Average-Ach. | | Over-Ach. | | Total | |
|---|-------------------|-----|--------------|-----|-----------------|-----|--------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Perceived higher than ideal | 325 | 9 | 366 | 9 | 279 | 7 | 970 | 8 |
| Perceived lower than ideal | 2,054 | 54 | 1,965 | 51 | 1,735 | 45 | 5,754 | 50 |
| Perceived and ideal same | 1,404 | 37 | 1,581 | 40 | 1,849 | 48 | 4,834 | 42 |
| Number of Items Compared | 3,783 | 100 | 3,912 | 100 | 3,863 | 100 | 11,558 | 100 |
| Number of Items not Compared ^a | 229 | | 100 | | 149 | | 478 | |
| Total Number of Possible Comparisons | 4,012 | | 4,012 | | 4,012 | | 12,036 | |
| <u>df</u> = 4 | $\chi^2 = 100.33$ | | | | <u>p</u> < .001 | | | |

^aFor these items student's response on either or both of the scales was missing.

TABLE 13

SUMMARY OF 204 CORRELATIONS BETWEEN PERCEIVED-SELF AND IDEAL-SELF BY PATTERN OF ACHIEVEMENT - BOYS

| Achievement Pattern | Range | Median | Number of Significant Correlations | Number of Negative Correlations |
|---------------------|-------------|--------|------------------------------------|---------------------------------|
| Under-Achievers | -.15 to .81 | .22 | 40 | 6 |
| Average Achievers | -.04 to .81 | .41 | 56 | 1 |
| Over-Achievers | .03 to .84 | .43 | 64 | - |
| Combined Group | -.15 to .84 | .37 | 160 | 7 |

TABLE 14

SUMMARY OF 204 CORRELATIONS BETWEEN PERCEIVED-SELF AND IDEAL-SELF BY PATTERN OF ACHIEVEMENT - GIRLS

| Achievement Pattern | Range | Median | Number of Significant Correlations | Number of Negative Correlations |
|---------------------|-------------|--------|------------------------------------|---------------------------------|
| Under-Achievers | -.23 to .79 | .29 | 49 | 7 |
| Average Achievers | -.02 to .78 | .44 | 56 | 2 |
| Over-Achievers | -.14 to .95 | .43 | 56 | 1 |
| Combined Group | -.23 to .95 | .37 | 161 | 10 |

TABLE 15

CLASSIFICATION OF STUDENTS ACCORDING TO PATTERN OF ACHIEVEMENT AND LEVEL OF CONGRUENCE BETWEEN PERCEIVED-SELF AND IDEAL-SELF - BOYS

| Level | Under-Achiever | | Average Achiever | | Over-Achiever | | Combined Group | |
|--------------------------------|----------------|-----|------------------|-----|---------------|-----|----------------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Lower than Median | 46 | 68 | 30 | 44 | 26 | 38 | 102 | 50 |
| Equal to or Higher than Median | 22 | 32 | 38 | 56 | 42 | 62 | 102 | 50 |
| Total | 68 | 100 | 68 | 100 | 68 | 100 | 204 | 100 |

df = 2

 $\chi^2 = 13.18$

p < .01

TABLE 16

CLASSIFICATION OF STUDENTS ACCORDING TO PATTERN OF ACHIEVEMENT AND LEVEL OF CONGRUENCE BETWEEN PERCEIVED-SELF AND IDEAL-SELF - GIRLS

| Level | Under-Achiever | | Average Achiever | | Over-Achiever | | Combined Group | |
|--------------------------------|----------------|-----|------------------|-----|---------------|-----|----------------|-----|
| | No. | % | No. | % | No. | % | No. | % |
| Lower than Median | 46 | 68 | 29 | 43 | 27 | 40 | 102 | 50 |
| Equal to or Higher than Median | 22 | 32 | 39 | 57 | 41 | 60 | 102 | 50 |
| Total | 68 | 100 | 68 | 100 | 68 | 100 | 204 | 100 |

df = 2

 $\chi^2 = 12.84$

p < .01