

AN ABSTRACT OF A DISSERTATION

ACHIEVEMENT AND ITS RELATIONSHIP TO SELF- CONCEPT AND OTHER FACTORS

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This study was undertaken to find the relationship of achievement to self-concept, socioeconomic status, intelligence, sex and age either singly or severally.

The subjects were 667 regular fourth year high school students of the Iloilo Provincial High School, Iloilo City, for the year 1972-1973, who were classified and reclassified according to their responses to a validated self-concept inventory, a socioeconomic questionnaire, and a mental ability test; and according to sex and to age.

As indices of their achievement the standard scores of the samples' responses to validated, and correlated tests in Literature, Physics and Grammar-Composition were added, and the result, transmuted into derived scores, all of which became the sources of data for the study.

To test the null hypotheses which stated that there was homogeneity in achievement among the various groups under each category, the procedures for the single and the multiple classification, analyses of variance, were used on the data.

Since all the obtained F's were significant, more refined source of variation in achievement among groups were determined by the comparison of any two means under each category of classification of the sample.

The *eta* correlation coefficients, and the interclass coefficients of correlation for each factor and achievement were also computed.

I. Obtained Interclass Coefficients of Correlation

1. Forty percent of the variation in achievement of the sample was due to

self-concept and the 60% to other factors (R_i for self-concept and achievement = .40).

2. Socioeconomic status had an R_i of .19 with achievement, a low or negligible correlation, which means that nineteen percent of the variation in achievement of the sample was associated with socioeconomic status, and the 81% to other factors (R_i for socioeconomic status and achievement = .19).

3. Sixty-four percent of the variation in achievement of the sample was associated with intelligence, and the 36% to other factors (R_i for IQ and achievement = .64).

4. Nine percent of the variation in achievement of the sample was due to sex differences and the 91% to other factors (R_i for sex and achievement = .09).

5. Thirteen percent of the variation in achievement of the sample was related to age and 87% to other factors (R_i for age and achievement = .13).

II. Obtained t-values in the Comparison of Means

1. The achievement of the high self-concept subgroup was significantly better than the achievement of the low-self-concept subgroup ($t=6.44$) and the average-self-concept subgroup ($t=4.49$), but the achievement of the two lower subgroups cannot be told apart ($t=1.92$).

2. The achievement of the rich subgroup under socio-economic status was significantly better than the achievement of the poor subgroup ($t=3.8$) and that of the middle class was significantly different from the same poor subgroup ($t=3.24$), but the achievement of the two

higher subgroups cannot be seen apart ($t=.56$).

3. The achievement of the bright subgroup in IQ was significantly better than the slow subgroup ($t=3.90$) but the achievement of the two higher subgroups – the bright and the mediocre cannot be told apart ($t=1.80$); neither was there a significant difference in the achievement of the lower subgroups – the mediocre and the slow ($t=1.60$).

4. The achievement of the female subgroup was significantly better than the achievement of the male subgroup ($t=2.88$).

5. The achievement of the older subgroup was significantly lower than the achievement of the younger subgroup ($t=2.93$).

III. Obtained Scheffe' F's in the Comparison of Means for Interaction.

First Order Interaction

A. Sex and Self-Concept

1. Among the males, the achievement of those with high self-concept significantly was better than that of those with low self-concept ($F=33.37$) and that of those with average self-concept ($F=24.57$) but the achievement means of the two lower subgroups showed no significant difference ($F=2.81$).

2. Among the female, the achievement of those with high self-concept was better than that of those with low self-concept ($F=32.12$) and that of those with average self-concept ($F=15.89$), but the achievement of the two lower subgroups showed no significant difference ($F=6.75$).

3. When self-concept was controlled,

no significant Scheffe F, even at the .05 level, was found in the comparison between the sex subgroups. This may indicate that if males and females had the same level of self-concept, they would achieve at about the same level.

B. Self-concept and Socioeconomic Status

1. Among the "rich," a significant difference in achievement was found between those with high self-concept and those with low self-concept ($F = 26.74$), but the achievement of the two higher or the two lower self-concept subgroups could not be told apart. Among the "middle class," the achievement of the high self-concept subgroup was significantly better than the achievement of the low self-concept subgroup ($F = 46.43$), and the achievement of the average self-concept subgroup was significantly better than the achievement of the low self-concept subgroup ($F = 20.66$), but the achievement of the two higher self-concept subgroups could not be told apart ($F = 7.72$).

2. No significant Scheffe F was obtained in the comparisons between any pair of means for the subgroups of the poor when self-concept was allowed to vary.

3. When SES was allowed to vary and self-concept was controlled, the only significant difference in achievement was obtained between the middle-class and the poor in the average self-concept bracket ($F = 18.48$).

C. Self-concept and IQ

1. No significant differences in achievement was found when IQ was

controlled and self-concept was allowed to vary. This seems to indicate that IQ, more than self-concept, is related to achievement.

2. When self-concept was controlled and IQ was allowed to vary, differences between eight pairs of achievement means, out of a possible nine, were found significant. This finding seems to indicate that IQ is strongly related to achievement.

D. Socioeconomic Status and Sex

1. The achievement of the three SES subgroups among the males were significantly differentiated from each other. So were those among the female group.

2. When SES was controlled and sex was allowed to vary, the comparison between the male and female subgroups did not yield a significant F. This may indicate that SES more than sex is related to achievement.

E. IQ and Sex

1. The achievements of the three IQ subgroups among the males were significantly differentiated from each other. So were those among the females.

2. When IQ was controlled, no significant difference in achievement between the sex subgroups was obtained. IQ more than sex seems to be associated with achievement.

F. Socioeconomic Status and IQ

1. When IQ was controlled, SES seemed to be associated with achievement only among the bright, where a significant difference was found between the achievement of the poor bright on the

one hand and both of the middle class and the rich on the other. Among the mediocre and the slow subgroups, no comparison yielded any significant difference.

2. When IQ was allowed to vary and socioeconomic status was controlled, eight of the nine possible pairs of comparison proved to yield significant differences in achievement. It was only among the poor where the achievement of the slow was significantly lower than those of the bright and the mediocre, which could not be told apart.

Second Order Interactions

A. Self-concept, Socioeconomic Status and Sex

1. When socioeconomic status and sex were controlled, no comparison yielded any significant difference among the subgroups of males of high, average or low self-concept, but among the females, one comparison yielded a significant difference of means, that between the high self-concept and the low self-concept in the middle class group.

2. When SES in turn varied and self-concept and sex were controlled, no comparison of means yielded any significant difference among the male SES subgroups; but among the female subgroups, two comparisons yielded significant differences of means in the high self-concept bracket: that between the rich and the poor ($F = 17.39$) and that between the middle class and the poor ($F = 20.23$). No comparison among the female subgroups with low self-concept was significant.

3. When sex was allowed to vary and

self-concept and SES were controlled, no significant comparison was obtained between the sex subgroups. It appears that where self-concept, SES, and sex were contributing factors in achievement, self-concept and SES seemed to be significantly associated with achievement only among the female subgroups.

B. Self-concept, IQ and Sex

1. When IQ and sex were controlled and self-concept varied, no significant difference between means was obtained among the male subgroups. Likewise, no significant difference was obtained between the female subgroups when self-concept varied and IQ and sex were controlled. The findings seem to indicate that self-concept for either the male or female subgroups was not associated with achievement when the other factors involved were IQ and sex.

2. But when IQ was allowed to vary and self-concept and sex were controlled, the significant differences were between broad groups among the males: between the bright and the slow among the high self-concept group, between the bright on one hand and both the two lower subgroups on the other among the average self-concept group; and between bright and the slow among the low self-concept group. It appears that IQ more than self-concept is related to achievement among the male groups.

3. When IQ was allowed to vary and self-concept and sex were controlled, significant differences were found among the three female self-concept groups: among the high self-concept subgroups, between the bright and the two lower IQ subgroups: the slow and the mediocre;

among the average self-concept subgroups, all three pairs of comparison yielded significant differences of means; among the low self-concept subgroups significant comparisons were between the two higher IQ subgroups and the slow. From these findings, it seems that, again, IQ more than self-concept and sex, was related to achievement.

4. When self-concept and IQ were controlled, comparisons between the sex groups did not yield significant differences in means.

C. IQ, Socioeconomic Status and Sex

1. When SES was allowed to vary and IQ and sex were controlled, no comparison of means yielded significant differences between the male subgroups, but among the female subgroups, two comparisons of means yielded significant differences: among the bright, between the two higher SES subgroups and the poor. No significant differences of means were found in the comparisons among the mediocre and the slow subgroups.

2. When IQ varied and SES and sex were controlled, comparisons yielding significant differences in means were found broadly among the three male SES subgroups: among the rich, between the bright and the slow; among the middle class, between the bright and the two lower IQ subgroups; and among the poor, one comparison was significant: that between the bright and the slow.

3. Among the female subgroups, when IQ varied and SES and sex were controlled, significant differences in means were obtained broadly among two higher SES groups: among the rich, between the bright and the slow; among the middle class — all three comparisons

yielded significant differences of means; but among the poor, no differences in means were found significant.

4. When sex varied and SES and IQ were controlled, no obtained Scheffe F-value was significant. From these sets of comparison, it appears that IQ more than SES was associated with achievement whereas the association of sex with achievement, when the influence of SES and IQ was suppressed, at this level of classification, was nil.

D. Self-concept, SES and IQ

1. When self-concept varied and SES and IQ were controlled, no significant comparison was obtained. This finding indicates that where SES and IQ were also involved in the comparison, the relationship of achievement to self-concept was nil.

2. When SES varied and IQ and self-concept were controlled, no significant value from the comparisons of means was obtained either. This may also mean that where self-concept and IQ were also involved, SES and achievement had no significant relationship.

3. When IQ in turn varied and self-concept and SES were controlled, one significant F-value of 61.24 was obtained in the comparison between the bright, average middle-class and the slow, average middle-class subgroups. IQ, when interacting with self-concept and SES, seemed to have a slight edge over the other two factors in its association with achievement.

Third Order Interaction

A Self-concept, SES, IQ and Sex

1. No significant Scheffe F was ob-

tained between any pair of subgroup means in either sex group when self-concept varied and SES and IQ were controlled. This may indicate that where all the four independent factors are involved, self-concept did not show significant relationship to achievement.

2. When SES was allowed to vary and self-concept, IQ and sex were controlled, no significant comparisons were obtained between any pair of means in either the male or female subgroups. This may also indicate that where all four factors were interacting, SES did not relate significantly to achievement.

3. When IQ was allowed to vary and self-concept, SES and sex were controlled, no significant comparison was obtained among the male subgroups.

4. When IQ was allowed to vary and self-concept, SES and sex were controlled, one significant value ($F= 43.46$) was obtained in the comparison between the bright and the slow among the average, middle-class female subgroups.

5. When sex was allowed to vary and self-concept, SES and IQ were controlled, no significant difference was obtained between the sex groups.