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A Study of Self-Concept and Intelligence of Low and High Achievement Children

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ABSTRACT

The purpose of this study was to investigate the relationship, the differences and some factors which affecting to self-concept, intelligence and achievement. One-hundred and ninety-six of low and high achievement children aged ten to twelve years old from ten municipla schools were administered with Coloured Progressive Matrices and self-concept inventory. Then t-test Chi-square and Pearson-Product Moment Correlation were used for analyses of data. Results showed that there is significant correlation between I.Q. and achievement children but there is no significant correlation between I.Q. and self-concept. It was also found that there is certain significant difference between high achievement children and low achievement children in self-concept. Furthermore boys and girls showed some significant difference in self-concept as well.

INTRODUCTION

In our society nowadays, there're gradual changes in society, economics, politics and cultures. Certainly, man become more and more civilized, lives grow more complicated. Therefore, the direction of these changes being good or inappropriate, is likely to depend upon the qualities of individuals in the society. It is necessary to develop the personality together with the education in order to develop into a full functioning person. So the task of education is to help the young to discover and take themselves increasingly more realistic and encompassing meaning with concomitantly increase efficiency of behavior, as there is a saying "Education makes a full man". The purposive education must enhance thought, skill and attitude for the Thais to understand themselves, their lives, their society and also the circumstance surround them. On the other hand, it may be said that one of the main purposes of education is to the promotion of self-concept. Since the author is interested in learning process as well as motivation including self-concept and intelligence which may play the important role in academic achievement. In this study, it will be the beginning to understand the matter which is the approach to promote and to prevent the problem before hand and even for therapy as well as in order assist the problematic children in a better way.

THE PURPOSE OF THE STUDY

1) To study the relationship of self-concept, intelligence and achievement.

2) To compare the differences of the variables between low and high achievement children.

3) To study the pattern or the structure of personality from behavioral index which are given in the self-concept test of the low and high achievement children aged 10-12 years old at Prathom 5 in order to identify the content of problem.

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METHODS AND PROCEDURE

Subjects

One hundred and ninety-six of Prathom 5 students were chosen from municipal schools in Bangkok by Stratified Random Sampling, and used as subjects for this study.

Variables

Dependent variable — Self-concept

Independent Variables —

- — Sex
  - — Boys
  - — Girls
- — Low of Parent's Education
  - — below Prathom 4
  - — Prathom 4 — below M.S. 3
  - — above M.S. 3
- — Level of Achievement
  - — low achievement (ones of the last five lowest grade student in the class)
  - — High achievement (ones of the first five highest grade students in the class)

Instruments

The subjects were administered with two kinds of tests for the study. They were :

1. Coloured Progressive Matriced Set A.Ab,B oridyed by J.C. Raven, 1962 which measures reasoning ability and Perceptual Discrimination.

2. Self-concept Inventory modified from Chintrakul's scale which derived the idea from Gough and Heilbrum Adjective checklist and also the Piers-Harris (PH) scale. Moreover this test was modified for study including three aspects :
   - — Academic Value
   - — Interpersonal Relationship
   - — Emotional Adjustment

Table 1 : The relationship between I.Q. and achievement

I.Q./Achievement	High	Low	N
High	37	12	49
Middle	61	58	119
Low	2	26	28
N	100	96	196

x^2 = 45.61** significant at .01 level

Table 2 : Difference between levels of I.Q. and levels of achievement.

I.Q./Achievement	High	Low	N
High	37	12	49
low	2	26	28
N	39	38	77

x^2 = 30.63** significant at .01 level.

The Processing of the Collected Data

After the answers of Coloured Progressive Matrices had been scored, sum of raw score would be adapted to WISC I.Q. in Thai norm. For the self-concept Inventory, it would be added up to the total score.

Analysis of Data

— t-test would be used for the comparison of mean differences in achivement, perceived self, ideal self, and sex.

— Chi-square would be used for the comparison of the difference or finding the relationship between I.Q. and achievement.

— Pearson-Product Moment Correlation would be used for finding the correlation coefficient.

FINDINGS

For the results of the study, it was found that I.Q. related to achievement and achievement related to self-concept. But between I.Q. and self-concept, there was no relationship. Concerning sex difference, boys

Table 3 : Comparison of Perceived Self between high and low achievement children

Level of Achievement	N	$\bar{X}$	SD	t
High	100	91.01	10.7929	9.8078*
Low	96	75.29	11.7526	

$t_{.05}(194) = 1.645$* significant at .05 level

and girls were not different in Perceived Self but boys had higher Ideal-Self than girls. Furthermore, the result implied to the importance of the parents. Children cared very much for the relationship between their fathers and mothers. Another finding was that high achievement children had ambition whereas low achievement children had negative feelings on themselves which might be thought feelings would probably hamper their learning process.

DICCUSSION

The relationship between I.Q. and achievement children was statistically significance at the .01 level. This result might confirm the general rule that the ability to gain the achievement must due to the level of their I.Q.. Pyle (Pyle, 1979) commented that I.Q. is usually thought that I.Q. does successfully predict school success by thinking that I.Q. causes successful attainment. But it is not so because two things are correlated, which don't mean that one is causing the other. It confirms Tesman's idea (cf. Pratum Pansuwan, 1975) that there are intellectual factors and non intellectual factors which influrence the success of the people. So school performance appears to depend more on cultural environment at home, emotional stability of the child or interest in school work, besides of the I.Q.. Consequently, the I.Q. related to achievement without being identical. High I.Q. children have higher achievement than the low achievement children showed that high I.Q. children is likely to have high achievement which the low I.Q. children are not able to do so. However, there is no boundary or clear demarcation to determine the exact performance. As Tyler (cf. Brown and Hennstein, 1975) stated that one can say with reasonable accuracy that good performance in school requires a better-than-average I.Q., but that a better-than-average I.Q. is no guarantee of good performance in school. However, it might be said that the nature of I.Q. test and nature of achievement in school test was similar to its property. The correlations and differences between level of I.Q. and self concepts were insignificant. These results might imply that intelligence alone could not influence children to have positive or negative self-concept for these ages. But High achievement children have higher Perceived Self than low achievement children, significantly at the .05 level. It should be considered the result in a two-way street, that there is a continuous interaction between the self and academic achievement, and that each directly influences the other.

Table 4 : Comparison of Ideal Self between high and low achievement children

Level of Achievement	N	$\bar{X}$	SD	t
High	100	114.28	32.5936	−7.002*
Low	96	147.36	33.5716	

$t_{.05}(194) = -1.645$* significant at .05 level

Table 5 : Comparison of Perceived Self between boys and girls

Sex	N	$\bar{X}$	SD	t
Boys	101	81.98	16.0598	−1.7954
Girls	95	85.86	14.077	

$t_{.05}$ (194) = 1.645

Table 6 : Comparison of Ideal Self between boys and girls

Sex	N	$\bar{X}$	SD	t
Boys	101	135.85	35.5281	2.1167*
Girls	95	124.77	37.7038	

$t_{.05}$ (194) = 1.645* significant at .05 level

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