

#### v. Summary of Findings and Their Implication

In this study, we attempted to investigate the distribution of education, measured by students' cognitive ability, and factors determining it. We are also interested in finding out the consistency, if any, of the influences of these factors from lower to higher level of education. The conceptual framework of educational production function was employed. Students' scholastic achievement, measured by their test scores, was taken as the only educational outcome.

Due to time and budgetary constraints, our analysis was confined to the lower primary and the upper secondary levels. At the lower primary level, we analyzed the scholastic achievement of grade 3 pupils using the data tapes on the sample of the grade 3 pupils made available by the National Education Commission. The analysis at the upper secondary level was based on our own survey of the Mathayom Suksa 5 (MS 5) students. The samples were drawn from some first year college students in various institutions of higher education, both public and private. Information on school inputs pertaining to each student was obtained from the annual reports submitted to the Ministry of Education by schools all over the country.

At the lower primary level, many factors measuring the parents' socioeconomic status and pupils' own characteristic were found to affect significantly the pupils' scholastic achievement. However, these factors were highly correlated with the school inputs. When school inputs were controlled for, some socioeconomic variable, in particular the occupation of father, turned out to be statistically insignificant. This should not be surprising since the type of school attended by the children reflected their family background clearly. The only type of school accessible by farmers' children in the villages are the CAO schools. The quality of these schools are the lowest among all types of school. The analysis shows clearly that the average scholastic achievement of pupils in private and MOE schools were significantly above those in the CAO schools. Pupils who had been to kindergarten schools also performed better than those who had not. These schools; the private, the MOE and the kindergarten, are accessible only by children living in municipal areas.

Despite the problem high correlation among school and nonschool variables, it was shown that an increase in the variance explained due to

adding of school input variables into the regression equation was statistically significant. Teachers' cognitive skills, measured by their cognitive test scores, determined significantly the pupils' scholastic achievement. These teachers' cognitive skills were in turn affected by their qualifications, ages and formal education.

The progression of pupils, in the Thai educational system, to higher educational level are determined almost entirely on their performances in the examinations. These examinations emphasize heavily the cognitive ability of students. Furthermore, almost all public school and some good private schools employ competitive entrance exams to select new students. As a consequence, students who survive through higher educational level are relatively homogeneous in cognitive ability and in family socioeconomic background.

Because of the problems of severe multicollinearity and not enough variation in the sample, not many variables showed up to be statistically significant in the final regression equation for the scholastic achievement of MS 5 students. The variable that consistently exerted negative effect on the achievement of the Grade 3 pupils and the MS 5 students was the repetition of students in any grade level. Class size and average teacher salary were also significant determinants of the MS 5 students' scholastic achievement.

Due to more homogeneity of students at the higher level of education, traditional socioeconomic variables do not show up to be statistically significant in the regression equation for the MS 5 scholastic achievement.

The findings of the study imply that the inequalities in scholastic achievement at the lower level of education resulted in eliminating the low achievers out of the formal school system. These low achievers are mostly children of the farmers who went to poor-quality schools at the lower primary level. The survivors of the system are the children of families with higher socioeconomic status in large urban areas where schools of good quality are numerous.

Scholastic achievement of pupils could be improved through the improvement of schooling inputs. Various measures to improve teachers' cognitive skills, in addition to upgrading of qualification, should be invented. This may necessarily involve improvement in administration in public schools particularly the CAO schools.