

Incidence of Underachievement in the Secondary and Higher Secondary Schools of Kerala

REENA GEORGE* and MERCY ABRAHAM**

ABSTRACT

The distressing phenomenon of underachievement in school subjects is a matter of great concern among researchers and educationists. The study compares the incidence of academic underachievement, among 1,730 students in the Secondary and Higher Secondary Schools of Kerala. Composite Tests of Achievement in school subjects and Raven's Standard Progressive Matrices were the tools used. Regression analysis and Critical Ratio tests of significance were the statistical techniques employed. The study found that 15.26 per cent of students in the Secondary and Higher Secondary Schools of Kerala are underachievers in school subjects, 70.46 per cent are normal achievers and 14.28 per cent are overachievers. The proportion of underachievers is higher in the Secondary level than that in the Higher Secondary level. A higher proportion of female students are overachievers, whereas a higher proportion of male students are underachievers. The rural and urban sub-groups are homogenous with respect to the incidence of over, normal and underachievement.

Introduction

Academic underachievement, more than academic failure, constitutes a grave problem as it amounts to wastage of human resources, which should be construed as an irreparable loss to the society. Underachievement or lack of development according to one's capacity,

* *Sl. Gr. Lecturer in Education, Karmela Rani Training College, Kollam, Kerala.*

** *Former Professor, Department of Education, University of Kerala, Thiruvananthapuram.*

is alarming and poses a special problem to all those who are interested in education.

Underachievement: Failure to work up to one's Potential

Poor performance in the absence of any discernible deficit in the structural apparatus required for learning is commonly described as *underachievement*. While high and low achievement refers only to above and below average achievers, the concept of over and underachievement takes into account the academic achievement in relation to the intellectual level of the individual. Thus, underachievement can be understood as the discrepancy between intelligence test scores and achievement test scores. For any intelligence level, if a person achieves below what is expected of him, he is usually called an *underachiever*. Underachievers are typically defined as pupils who perform significantly less well in school than would be predicted from their performance on measures of learning ability, intelligence, or in some cases, past achievement. Underachievers are students who possess good or high potential and show a discrepancy between their potential and actual achievement. Good (1945) defines an underachiever as "one whose academic achievement is significantly below the level expected of him on the basis of his assessed intellectual potential". Thus, academic underachievement may be defined operationally as the actual academic achievement falling short of the expected or potential academic achievement. The incidence of underachievement varies with the school subjects under study and probably with differences in samples.

Objectives

It is commonly observed that many students at the Secondary and Higher Secondary level underachieve in different school subjects. The present investigation was aimed at finding out the incidence of underachievement among students in the Secondary and Higher Secondary Schools of Kerala. The specific objectives of the study were:

1. To identify the underachieving students in the Secondary and Higher Secondary schools of Kerala, using Regression equations.
2. To compare the incidence of over, normal and underachievement among students in the Secondary and Higher Secondary levels of Kerala.

3. To find out whether there is significant difference in the proportion of male and female sub-samples of over, normal and underachieving students in the Secondary and Higher Secondary schools of Kerala.
4. To find out whether there is significant difference in the proportion of rural and urban sub-samples of over, normal and underachieving students.

Sample

The sample comprised of 1,730 students selected from Secondary and Higher Secondary Schools of Kerala.

Tools

The tools used for the study were: Raven's Standard Progressive Matrices Test of Intelligence (Raven et. al., 1998), Composite Test of Achievement for Standard VIII; Composite Test of Achievement for Standard IX; Composite Test of Achievement for Standard X; Composite Test of Achievement for Standard XI (*Science Group*); Composite Test of Achievement for Standard XI (*Humanities Group*); Composite Test of Achievement for Standard XI (*Commerce Group*); Composite Test of Achievement for Standard XII (*Science Group*); Composite Test of Achievement for Standard XII (*Humanities Group*); and Composite Test of Achievement for Standard XII (*Commerce Group*), developed by George (2004).

Analysis and Findings

The investigation was designed as a *descriptive study* and *normative survey* was followed for gathering the data essential for the study. Data analysis was done using Regression equations, percentages and critical ratios.

1. Identification of Over, Normal and Underachievers in the Secondary and Higher Secondary Schools of Kerala

The underachievers in the Secondary and Higher Secondary Schools of Kerala were identified by the Farquhar (1963) technique. The five Regression Equations developed for Standards VIII, IX, X, XI and XII respectively are:

- (1) $Y = 0.92X + 26.14$, for Standard VIII
- (2) $Y = 0.53X + 50.73$, for Standard IX

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- (3) $Y = 0.99X + 34.88$, for Standard X
- (4) $Y = 0.34X + 36.77$, for Standard XI, and
- (5) $Y = 0.29X + 38.61$, for Standard XII

Regression Lines corresponding to each regression equations were developed for identifying the over, normal and underachievers in Standards VIII, IX, X, XI and XII respectively. The proportion of overachievers (OA), normal achievers (NA) and underachievers (UA), identified in the Secondary and Higher Secondary Schools of Kerala as per the above method is presented in Table 1.

TABLE 1
Proportion of Over, Normal and Underachievers in the Secondary and Higher Secondary Schools of Kerala

Achievement Category	School Level		Total
	Secondary	Higher Secondary	
Over Achievers (OA)	139 (13.9 %)	108 (14.8 %)	247 (14.28 %)
Normal Achievers (NA)	692 (69.2 %)	527 (72.19 %)	1219 (70.46 %)
Underachievers (UA)	169 (16.9%)	95 (13.01 %)	264 (15.26 %)
TOTAL	1000	730	1730

From Table 1 it is evident that 15.26 per cent of the students in the Secondary and Higher Secondary Schools of Kerala are *underachievers*, whereas 70.46 per cent of the students under study are normal achievers and 14.28 per cent are overachievers. It is thus evident that *many students in the Secondary and Higher Secondary Schools of Kerala are underachievers in school subjects*, which is an alarming situation. Further, 16.9 per cent of the *Secondary School* students and 13.01 per cent of the *Higher Secondary School* students are *underachievers* in school subjects.

2. Identification of the Incidence of Over, Normal and Underachievement in the Secondary and Higher Secondary Schools of Kerala

The proportion of over, normal and underachievers identified from the Secondary and Higher Secondary Schools of Kerala were compared by applying the one-tailed test of significance for difference between percentages (Garrett, 1981). The data and the results of the comparison are given in Table 2.

TABLE 2
**Comparison of the Proportion of Over, Normal and Underachievers
 in the Age Group 13-17 in the Secondary and Higher Secondary
 School Levels**

Achievement Category	School Level				Critical Ratio
	Secondary		Higher Secondary		
	N_1	P_1	N_2	P_2	
Over Achievers (OA)	1000	13.9	730	14.8	0.53
Normal Achievers (NA)	1000	69.2	730	72.19	1.35
Underachievers (UA)	1000	16.9	730	13.01	2.22*

* Significant at 0.05 level

The results, as evident from Table 2 indicate that *there is significant difference in the incidence of underachievement at the Secondary and Higher Secondary level*. Comparison of the percentages shows that *the proportion of underachievers in the Secondary level is higher than that in the Higher Secondary level*. However, the incidence of normal and overachievement do not differ significantly at the Secondary and Higher Secondary levels.

3. Influence of Gender differences on Over, Normal and Underachievement among Students in the Secondary and Higher Secondary Schools of Kerala

The proportion of male and female sub-samples of over, normal and underachieving students in the Secondary and Higher Secondary Schools of Kerala were compared using two-tailed test of significance for difference between percentages (Garrett, 1981), to study the influence of gender differences on the three achievement levels. The results of the tests of significance are summarised in Table 3.

The results revealed that there is significant difference in the proportion of male and female sub-samples of overachievers as well as underachievers. However, no significant difference is noted in the proportion of male and female sub-samples of normal achievers.

Comparisons of the proportion of the male and female sub-samples of under, normal and overachievers revealed that a *higher proportion of the female students are overachievers (18.6 per cent), whereas a higher proportion of male students are underachievers (19.1 per cent)*.

TABLE 3
Comparison of the Proportion of Male and Female Sub-samples of OA, NA and UA in the Secondary and Higher Secondary Schools of Kerala

Achievement Category	Gender Groups				Critical Ratio
	Male		Female		
	N_1	P_1	N_2	P_2	
Over Achievers (OA)	837	9.7	893	18.6	5.24**
Normal Achievers (NA)	837	71.2	893	69.8	0.64
Underachievers (UA)	837	19.1	893	11.6	4.34**

** Significant at 0.01 level

4. Influence of Locale on Over, Normal and Underachievement among Students in the Secondary and Higher Secondary Schools of Kerala

The effect of locale on the three achievement levels, viz. over, normal and underachievement, was studied by comparing the sub-samples of under, normal and overachievers in the Secondary and Higher Secondary Schools of Kerala, by applying the two-tailed test of significance. The results are presented in Table 4.

TABLE 4
Comparison of the Proportion of Rural and Urban Sub-samples of UA, NA and OA in the Secondary and Higher Schools of Kerala

Achievement Category	Gender Groups				Critical Ratio
	Rural		Urban		
	N_1	P_1	N_2	P_2	
Over Achievers (OA)	880	14.6	850	14.0	0.35
Normal Achievers (NA)	880	70.3	850	70.6	0.12
Underachievers (UA)	880	15.1	850	15.4	0.17

The finding shows that there is no significant difference between rural and urban groups with respect to the proportion of over, normal and underachievers, i.e. *the rural and urban groups of students in the Secondary and Higher Secondary Schools of Kerala are homogenous with respect to the incidence of over, normal as well as underachievement.*

Conclusion

The following conclusions were drawn from the findings of the study:

1. Many students in the Secondary and Higher Secondary Schools of Kerala are underachievers in school subjects. 16.9 per cent of the Secondary School students and 13.01 per cent of the Higher Secondary School students are underachievers in school subjects.
2. School level has a significant influence on the incidence of underachievement. The proportion of underachievers in the Secondary level (16.9 per cent) is significantly higher than the proportion of underachievers in the Higher Secondary level (13.01 per cent).
3. Gender has a significant influence on overachievement as well as underachievement. A higher proportion of the female students are overachievers (18.6 per cent), whereas a higher proportion of male students are underachievers (19.1 per cent).
4. Rural-urban locale has no significant influence on the incidence of underachievement in the Secondary and Higher Secondary Schools of Kerala.

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