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Psycho-social correlates of academic achievement of students

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A B S T R A C T

Education competence in the present world is interwoven with the progress of every society. The most significant agency of education is school, where an individual should learn not only academics but to adjust with the surrounding in specific and society at large. The social standing of an individual is strongly characterized by the predominant features of his or her family background. School achievements are considered to be the most important in determining the career of a student. Academic achievement of a student is greatly influenced by several psychological and sociological correlates such as attitude, teacher effectiveness, adjusting ability, socio-economic status, home and school environment. Adolescence is the crucial stage where adjustment changes rapidly fluctuate; social standing influence the peer group one is in. In the present study, intended to investigate the psycho-social correlates of academic achievement of adolescent students, 96 students from state board schools at the secondary level are selected using random sampling technique. Analysis of data collected shows that the adjustment pattern is similar among students in boys, girls and co-education state board schools at the secondary level. It is also further seen that the co-education students are better than the boys in the socio-economic status of state board schools. It is also concluded from the study that co-education students are better than boys and girls in their academic achievement of state board schools. This can be due to the competitive spirit between the opposite genders with each of them trying to perform better than the other.

Introduction

Education competence in the present world is interwoven with the progress of every society. Educationists have sensitized people in comprehending that education

serves as knowledge inputs, for the individual to use his potentials as a vital resource, in the direction of progress to meet the demands of the society. Learning

in a classroom depends a great deal on the structure and pattern of inter-personal relationship particularly pupil-pupil relationship, existing at a given point of time within the learning group. According to the modern concept of education, best adjustment is the ultimate goal of education. The most significant agency of education is school, where an individual should learn to adjust. Good adjustment makes the students proud and self-satisfaction motivates them for future success, encourages them to be of independent thinking and builds their self-confidence.

Adjustment means reaction to the demands and pressures of social environment imposed upon an individual. The personality of a child develops in a continuous process of interaction with his family environment. Adjustment may be defined in several ways. In the words of Shaffer (1991), adjustment is the process by which a living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs. According to Newman and Newman (1981), the concept of adjustment refers to active, creative efforts to live effectively. This requires gaining skills through interaction with one's world acquiring a degree of control over one's daily life successfully meeting life's challenges, self understanding and the ability to make accurate judgments about people and places.

Socio-economic status helps to determine self-concept, self-esteem, aspirations for the future, and the like. According to the Dictionary of Education, socio-economic status refers to a person's position in any given group, society or culture. The more realistic goal setting of children from higher as compared to lower class children

is the result of greater feeling of security. Various cultural groups and socio-economic status bring about different attitudes and values among adolescents. Undoubtedly class and socio-economic factors play a significant role in development and learning of children.

According to Chaplin (1965), educational or academic achievement is the specified level of attainment or proficiency in academic work as evaluated by the teachers, standardized or by a combination of both. Carter (1959), in the Dictionary of Education defined, achievement as knowledge acquired and skills developed in school subjects, generally indicated by marks obtained in tests. Achievement contributes strongly to one's own self-esteem. It is also important in gaining the esteem of others. High achievers have greater difficulty in interpersonal relationships with peers and appeared less co-operative, more selfish, less dependable, and less sociable. In contrast, under achievers are more likely to be characterized by a high level of free floating anxiety, negative self-confidence, hostility towards authority, difficulty in relating to peers combined with excessive dependence on the peer group.

The ultimate aim of education is to train the youth to make proper adjustments to the different types of environment in which they have to live. Psychologists and psychiatrists have brought to light on the basis of their researches that making proper adjustments to the changing nature of the environment is the most important prerequisite condition for a happy and successful life. An individual is not born adjusted or maladjusted. It is as his physical, mental and emotional potentialities are influenced and directed by the factors of the environment in which he

finds himself adjusted or maladjusted. The social standing of an individual is strongly characterized by the predominant features of his or her family background. Academic achievement of a student is greatly influenced by several factors such as attitude, teacher effectiveness, adjusting ability, socio-economic status, home and school environment. Adolescence is the crucial stage where adjustment changes rapidly fluctuate; social standing influence the peer group one is in. The above said factors have a bearing on achievement. Hence, a need is felt to study the relationship between adjustment pattern, socio-economic status and achievement among students at the secondary level.

Review of related Literature

An exhaustive review is an integral part of research knowledge and fills in the lacunae in available literature. With the above said intention of research, the study has compiled data from empirical literature and utilized the same for extrapolating relevant questions for which answers are not available in the literature collected. The justification for the need and importance of the study thus has been done using the literature. This review collected has been systemically classified and presented with appropriate titles.

Studies Related to Adjustment Pattern and Academic Achievement

Researchers have perceived psychological health of students to be significantly positively related to students' social and personal adjustment which in turn has played a role in the determining the academic performance of students (Slee, 1993; Schwitzer, 1993; Roberts and Homes, 1995). Corroborative studies undertaken by Gurubasappa (2009),

Surekha (2008) and Halpern (1991) point out that a significant positive high correlation exists between academic achievement and adjustment.

Ganai and others (2013) conducted a study with a sample of 80 students at the higher secondary level in Baramulla District. The findings of the study revealed that the male and female adolescents differ significantly on mental health. However the two groups showed no difference in academic achievement. Further the two groups showed difference on various dimensions of the Mental Health Battery including Emotional Stability (ES), Overall Adjustment (OA), Security Insecurity (SI) and General Intelligence. The main difference favoured the male adolescents in case of these dimensions. However, the two groups showed no difference in Autonomy (AY) and Self-concept dimension (SC). Based on the findings of the study recommendations were made to provide guidance and counselling facilities in the higher secondary schools of Baramulla District.

Poor school adjustment leads to low academic achievement, behavioural problems, discordant educational aspirations and even school dropout. The study by Adhiambo and others (2011) investigated the levels of school adjustment and its relationship with academic achievement. Gender differences in school adjustment were also examined. A cross-sectional research design was employed. The sample consisted of 450 secondary school students and the results showed no significant differences between girls and boys in school adjustment and significant differences between high achievers and low achievers in dedication, absorption, engagement and school adjustment.

Studies Related to Socio-economic Status and Academic Achievement

Hodges (1980), White (1982), Guestafson (1992), Million (1993) and Minakshi (2000) have all reported socio-economic status of the family condition to be significantly correlated with achievement of students. Mc Neal (2001), Jeynes (2002) and Eamon (2005) have also pointed out that socio-economic status has overridden other educational influences such as, family size, parental involvements and educational level of the parents.

The study conducted by Mahmood Shah and others (2012) investigated the impact of socio-economic status of family on the academic achievements of students on two important aspects. Firstly, it studied the relationship between socio-economic status of the family and academic achievements of their family members. Secondly, it investigated the impact of socio-economic status on the academic achievements of children. For this study, eight colleges and two higher secondary schools were selected from Derai Ismail Khan District. A sample of 20 students was selected from each college and school. The findings showed positive and strong correlation between SES and academic achievements of the children.

In the study conducted by Mihăilă Teodor (2012), investigating the influence of socio-economic status on school performance, it is concluded that socio-economic status has a significant impact on school performance and it is seen as a good indicator of school performance. The sample comprised a group of 100 young students aged between 18 and 24 years old being in their fourth year of high school. The tools used were Socio-economic Status Questionnaire (Burtăverde & Mihăilă, 2011) to measure the socio-economic status. In order to

measure academic performance, the average grades of the students were taken. After the results were analyzed, it was seen that school performance is, indeed, influenced by the hours spent learning, free time, the presence of siblings in the family and the family home place, (in the rural or urban area), all of which are metrics for socio-economic status.

Critique

Review of the related study provides a strong background for initiating an investigation about adjustment pattern, socio-economic status and achievement among students at the secondary level. The review helps in locating comparative data useful in the interpretation of results. From the review collected, it is seen that a number of studies have been undertaken to assess the relationship between adjustment and academic achievement and socio-economic status and academic achievement separately but there is a dearth of studies on all the above mentioned variables put together. Hence the investigator felt the need to undertake this study.

Statement of the Research Problem

A review of related literature on adjustment pattern, socio-economic status and academic achievement of students was conducted in order to understand the relationship between the variables. The problem for research was based on the following research questions:

- (i) Do the variables adjustment pattern and socio-economic status influence the academic achievement of students?
- (ii) To what extent do these variables contribute to the academic achievement of students?
- (iii) Do boys, girls and co-education students of the state board at the secondary

level differ significantly in their adjustment pattern, socio-economic status and academic achievement?

Based on the questions generated the following major objectives were extrapolated:

To investigate the relationship between the select variables among students at the secondary level.

To investigate the possible differences between boys, girls and co-education students of the state board at the secondary level with respect to the select variables.

Thus, the problem is stated as: Psycho-Social Correlates of Academic Achievement of Students.

Hypotheses Formulated

Two major hypotheses were formulated with regard to influences or relationships and with regard to variance.

Hypothesis-(i)

To achieve the above objectives, multivariate hypothesis had to be formulated as follows:

There will be a significant relationship between the select variables among students at the secondary level.

There will be no significant difference between boys, girls and co-education students of the state board at the secondary level with respect to the select variables.

Methodology

The study involves multiple variables necessitating multiple permutations and

combinations. The investigators took utmost care to establish a sound research methodology, linking psychological and educational variables pertaining to academic achievement. The variables identified have been classified hereunder as independent, dependent, intermediate and control.

The Variables

(i) Independent: Adjustment Pattern and Socio-economic Status

(ii) Dependent: Academic Achievement

(iii) Controlled:

- (a) Age
 - 12-14 years
- (b) Level of Education
 - Secondary level
- (c) Environment Level
 - Urban
- (d) Type of Board
 - State board

Population and Sample Selection

The target population for the present study is the students at the secondary level in state board schools. Keeping in view, the objectives of the study, 96 students at the secondary level in state board schools are selected randomly.

Measures

Adjustment Pattern Inventory (Bhattacharya and others, 1967)

The adjustment pattern inventory was developed by Bhattacharya and others (1967) at CASE (Centre for Advanced Study in Education). The questionnaire consists of 55 items on a five point scale.

The dimensions of the adjustment pattern inventory included Physical Factors (11), Emotional factors (11), Intellectual factors (17) and Social factors (16) with the total items being 55. The scoring of the inventory was made on a five point scale ranging from 0 to 220.

Vasanthi's Adaptation of Kuppuswami's Socio-Economic Scale (Vasanthi, 1991)

Vasanthi's Adaptation of Kuppuswami's Socio-Economic Scale (Vasanthi, 1991) consists of three variables: education, occupation and income. Under Education the scores range from 1 to 5. Under the dimension of Family income the scores range from 0 to 4 and for the dimension of Occupation the scores range from 0 to 5.

Measure of Academic Achievement

The marks scored by the students in the half-yearly examination are taken as a measure of academic achievement.

Pilot Study

The pilot study is done with 30 subjects randomly chosen from schools belonging to State board in Chennai. The selected questionnaires, namely, Adjustment Pattern Inventory (Bhattacharya and others, 1967) and Vasanthi's Adaptation of Kuppuswami's Socio-Economic Scale (Vasanthi, 1991) are given to the subjects.

(i) Validity

The instruments are given to experts for their judgment of relevance and irrelevance. After careful examination of the opinion by the selected experts, the content validity for all the instruments is established.

(ii) Reliability:

Reliability of the instruments is established using the Cronbach's Alpha method (Cronbach, 1951), as it is a more robust test of reliability compared to the simple test-retest method or parallel form reliability. The reliability estimated for Adjustment Pattern Inventory (Bhattacharya and others, 1967) is 0.76 and Vasanthi's Adaptation of Kuppuswami's Socio-Economic Scale (Vasanthi, 1991) is 0.81.

Main Study

The investigators conducted the main study after establishing the workability of the tools using tests of reliability and validity. Matching group of students who were not used for the pilot study were taken for the main study.

The selected tools were administered to a sample of 96 students in state board at the secondary level. The students were assured by the investigators that their responses and personal information will be kept confidential. 11 days were taken to complete the data collection from students belonging to the state board at the secondary level. The data thus collected was subjected to suitable statistical analyses for verification of the hypotheses.

Results and Discussion

It is evident from Table-1, that though adjustment pattern and socio-economic status are significantly positively correlated with each other, adjustment pattern does not correlate significantly with academic achievement. On the other hand, socio-economic status and academic achievement are positively correlated with each other significantly.

In Table-2, from the *F*-ratio value it is seen that adjustment pattern does not differ

significantly among students in boys, girls and co-education state board schools at the secondary level. The analysis of variance, pertaining to socio-economic status of students in boys, girls and co-education state board schools at the secondary level, it is seen that a significant difference exists between the students (Table-3).

In order to establish the actual degree of difference between the students belonging to different types of gender, namely, boys, girls and co-education schools of the state board at the secondary level, critical ratios are worked out and the actual difference between the mean scores are established. Table-4 indicates the mean difference between the students in different types of gender. The critical ratio values clearly indicate that the students in co-education schools are better than the students in boys schools at the secondary level.

Similarly results exhibited in Table-5 and Table-6 clearly indicates that the the students in co-education schools are significantly better in the academic performance compared to their counterparts in other two schools at the secondary level. Thus it is evident that the co-education students are better than boys and girls in their academic achievement of state board schools at the secondary level.

Students have several problems peculiar to themselves and to the academic institutions they are studying. Academic adjustment has been often defined as the adjustment of the students as measured through their scholastic success. This is only a narrow view. A students' success thus, depends on the understanding how to develop their capacities a bringing them to maximum use. Adjustment patterns in schools involve the students' healthy adjustments to school

or college. Their emotional maturity, sound mental and physical health, their personal and social relationships with teachers, their associates are factors that are likely to help or hinder the efficient pursuit of their goals. Research shows that supportive and attentive parenting practices positively affect academic achievement (Eamon, 2005). Parental involvement in school has been linked to both positive and negative influences on academic achievement (McNeal, 2001; Domina, 2005). Likewise, maternal characteristics are another key factor that affects academic achievement (Majoribanks, 1996; Baharudin and Luster, 1998; Eamon, 2005). Mothers who are more educated and have higher self-esteem have children who receive higher test score (Baharudin and Luster, 1998; Eamon, 2005). Similarly the size of the family has also been linked with high academic achievement (Baharudin and Luster, 1998; Eamon, 2005). Students with fewer siblings are likely to receive more parental attention and have more access to resources than children from large families. The additional attention and support leads to better school performance (Majoribanks, 1996; Eamon, 2005).

In the present investigation, it is seen that the adjustment pattern is similar among students in boys, girls and co-education state board schools at the secondary level. This may be attributed to the fact that students from state board schools irrespective of their gender, encounter the same class environment with a uniform syllabi and evaluation pattern as prescribed by the state government. They are tuned to working in an almost similar way and hence their adjustment pattern is similar too. It is also further seen that the co-education students are better than the boys

Table.1 Analysis of Correlation among Select Variables for Students in State Board Schools at the Secondary Level

	Adjustment Pattern	Socio-economic Status	Academic Achievement
Adjustment Pattern	1	0.18**	0.01
Socio-economic Status	–	1	0.17**
Academic Achievement	–	–	1

Table.2 Analysis of Variance of Adjustment Pattern among Students in Boys, Girls and Co-education State Board Schools at the Secondary Level

Source of variation	df	Sum of squares	Mean of sum of squares	F-ratio
Between groups	2	13.32	6.66	0.02 ^{NS}
Within groups	93	25584.17	275.11	
Total	95	25597.49		

NS-Not Significant

Table.3 Analysis of Variance of Socio-economic Status among Students in Boys, Girls and Co-education State Board Schools at the Secondary Level

Source of variation	df	Sum of squares	Mean of sum of squares	F-ratio
Between groups	2	2.76	1.38	4.88**
Within groups	93	26.29	0.28	
Total	95	29.05		

** Significant at 0.01 level

Table.4 Statistical Analysis of Mean of Socio-economic Status among Boys, Girls and Co-education Students in State Board Schools at the Secondary Level

Variable	Sample size	Mean	SD	SEM	SED	CR
Boys	30	1.57	0.47	0.09	0.14	1.43 ^{NS}
Girls	36	1.76	0.61	0.10		
Boys	30	1.57	0.47	0.09	0.12	3.45**
Co-education	30	2.00	0.49	0.09		
Girls	36	1.76	0.61	0.10	0.14	1.70 ^{NS}
Co-education	30	2.00	0.49	0.09		

NS- Not Significant

** Significant at 0.01 level

Table.5 Analysis of Variance of Academic Achievement among Students in Boys, Girls and Co-education State Board Schools at the Secondary Level

Source of variation	<i>df</i>	Sum of squares	Mean of sum of squares	<i>F</i> -ratio
Between groups	2	3766.83	1883.41	35.36**
Within groups	93	4953.01	53.26	
Total	95	8719.83		

** Significant at 0.01 level

Table.6 Statistical Analysis of Mean of Academic Achievement among Boys, Girls and Co-education Students in State Board Schools at the Secondary Level

Variable	Sample size	Mean	SD	SEM	SED	CR
Boys	30	49.10	7.97	1.46	2.09	4.88**
Girls	36	59.31	8.83	1.47		
Boys	30	49.10	7.97	1.46	1.60	9.74**
Co-education	30	64.67	3.62	0.66		
Girls	36	59.31	8.83	1.47	1.72	3.11**
Co-education	30	64.67	3.62	0.66		

** Significant at 0.01 level

in the socio-economic status of state board schools at the secondary level.

It is also concluded from the study that co-education students are better than boys and girls in their academic achievement of state board schools at the secondary level. At the secondary level, the students have to concentrate more and students belonging to co-education schools achieve better. This can be due to the competitive spirit between the opposite genders with each of them trying to perform better than the other. These students in co-education schools thus always seem to perform better in their academics than their counterparts in single gender schools.

The influence of different types of schools state board schools on the three variables selected for the present study, namely, adjustment pattern, socio-economic status

and achievement have been undertaken in this study.

An adjustment problem arises when a person confronts a demand made by his environment which he cannot fulfill. Adjustment may be described as a state of harmony between the needs, abilities and resources of a person on one hand and the conditions obtaining from his environment on the other. Generally speaking, socio-economic status is used as a measure of an individual's or a group's social position in the community (Mukherjee, 1999). However, there is no satisfactory single measure of an individual's or family's socio-economic status. As social position cannot be measured directly, it is usually determined by various economic, social and physical characteristics of the environments in which individuals live and work, as well as by demographic and genetic factors

(Ainley and Long, 1995). According to Mukherjee (1999), different socio-economic indexes can be created—from different combinations of variables—for different uses. Selecting the most appropriate indicators and indexes for a specific analysis can be problematic.

There are many factors within and without that have a bearing on the achievement of the individual. Attitudes begin to take deep roots from the adolescent stage and remain almost unchangeable through the life span. Parents and teachers have thus a crucial role to play in creating a conducive environment for children.

Future studies can be extended to other boards of education, namely the matriculation and central board schools. Studies pertaining to these variables can be extended to the higher secondary level also.

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