

Achievement Motivation, Study Habits and Academic Achievement of Students at the Secondary Level

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Abstract:

The present study investigates the relationship between achievement motivation, study habits and academic achievement at the secondary level. Survey method is used to select a sample of 457 students at the secondary level. Achievement Motivation Scale (Beena, 1986) is used to measure students' achievement by motivation, Study Habits Inventory (Gopal Rao, 1974) to test the students study habits and Academic Achievement Test to assess students' achievements. The results of the statistical analyses show a significant correlation between achievement motivation, study habits and performance of students. A significant difference is found between students in different categories of schools and gender pertaining to achievement motivation, study habits and academic achievement.

Keywords: Achievement Motivation, Study Habits and Academic Achievement

I. INTRODUCTION

Focus on educational outcomes has increased in the past decade with state wide high stakes testing and nationwide school accountability programs. In an effort to improve the academic success of students, it has become necessary to examine all components of the educational process in order to maximize the effectiveness of instruction within the classroom. Demonstrations to enhance the learning process thereby affecting academic outcomes (Kunc, 1992; Osterman, 2000), achievement motivation and study habits have been emerging as important components of education (Haertel and others, 1981).

II. NEED FOR THE PRESENT STUDY

Motivation is the force that energizes, directs and sustains behaviour toward a goal (Baron and Kenny, 1986). In educational contexts, Brophy and Good (1986) described motivation to learn as a tendency to find academic activities which are meaningful and worthwhile when deriving the intended benefits of those activities. Researchers often find a strong correlation between motivation to learn and student achievement (Wang and others, 1993). As a result, teachers at all levels routinely implement strategies designed to enhance the achievement motivation of students by developing a positive classroom climate and enhancing intelligence of students. Higher education institutions are beginning to provide assistance to students, especially new ones, in developing so-called study skills and self-regulatory skills such as time management. One of the greatest challenges and opportunities of the 21st century will be for schools at all levels to focus more on assisting students to become motivated in order that they can succeed in school. The most important factor along with others to be considered to enhance achievement motivation among students is their study habits. Thus, a need is felt to investigate achievement motivation, study habits and academic achievement among students in different categories of schools, following different systems of education, namely, the state, matriculation and central board schools at the secondary level.

III. REVIEW OF RELATED LITERATURE

Studies reviewed pertaining to the present study have been compiled and presented below under appropriate headings.

3.1 Studies Related to Achievement Motivation and Academic Achievement

Psychologists believe that motivation is a necessary ingredient for learning (Biehler and Snowman, 1986). Denhardt (2008) defined motivation as what causes people to behave as they do. According to Lawler (1994), motivation is goal directed. Motivation outlines the achievement and pursuit of goals (Denhardt, 2008). Pettinger (1996) defined motivation as environmentally dependent. Denhardt and others (2008) outlined motivation as not directly observable, the same as satisfaction, always conscious, and directly controllable. Studies reviewed pertaining to achievement motivation and academic achievement have been compiled and presented hereunder.

Anderson and others (2005) reported a study of motivation from an ecological perspective, considering the individual in interaction with the meaningful environment. Unlike much of the motivational literature that measured motivation in terms of constructs that were assessed largely, via self-report, the dependent variables studied by the researchers were three measures of more immediate classroom behaviours, namely, participation, self-reported engagement and task completion. The results revealed aspects of classroom climate to be significantly related to all measures of motivation.

Meece and others (2006) used the achievement goal framework to examine the influence of classroom and school environments on students' academic motivation and achievement. Though considerable evidence suggests that elementary and secondary students show the most positive motivation and learning patterns when their school settings emphasize mastery, understanding and improving skills and knowledge and school environments that are focused on demonstrating high ability and competing for grades display an increase in the academic performance of some students, research suggests that many young people experience diminished motivation under these conditions. At the same time, Franzis and others (2006) investigated the role of cognition, achievement motivation and conscientiousness on academic underachievement. 47 male and 46 female students from grades 7 to 10 participated in the study. Student attributes were assessed by self-report measures, school performance by academic grades and intellectual abilities by a standardized structure of intelligence test. Results of the investigation revealed that need for cognition as well as facilitating anxiety contributed the most to the explanation of underachievement. All relationships between underachievement scores and need for cognition, achievement motivation scales, and conscientiousness showed linearity.

Emmanuel and others (2014) investigated the relationship between achievement motivation, academic self-concept and academic achievement of high school students. In addition, the study investigated the students profile to ascertain the levels of achievement motivation, self-concept, and their academic achievement. A total of 120 students selected from four high schools participated in the study. The results showed that, majority of the high school students were highly motivated, have high self-concept and performed well in the Mathematics Achievement test. The study also revealed a significant correlation between self-concept and academic achievement. Again, there was a positive relationship between achievement motivation and academic achievement but the correlation was not significant.

3.2 Studies Related to Study Habit and Academic Achievement

Studying is a skill. Being successful in school requires a high level of study skills. Students must first learn these skills, practice them and develop effective study habits in order to be successful. Good study habits include many different skills: time management, self-discipline, concentration, memorization, organization, and effort. Studies pertaining to study habits and academic achievement of students have been compiled and presented hereunder.

Anton and Angel (2004) conducted a study to analyze the relationship among cattellian personality factors, study habits and academic achievement. A total of 887 volunteer students from primary education (453 males and 434 females) enrolled in 29 public schools, participated in this research. It was found that students with higher scores on socialized personality traits showed better study habits than those students with lower scores on personality socialization traits. The relationship between personality and academic achievement seems to be mediated by study habits. Moreover, females obtained higher academic achievement scores than males. These differences could be explained by the fact that females showed a more socialized personality pattern and better study habits.

Deborah and Brian (2006) conducted a study which highlighted the relationship between study habits and exam performance of II year medical students. The study also discussed how students used study habit in preparing for exams and whether students who used other study habits performed well as students who created their own. Study habits of the students were more similar. Majority of students used study habit as a memory aid or for review, but students who performed in the top third of the class were less likely to use them at all. Pre-existing differences related to Academic Achievement and Study Habit were found when students at the top, middle and bottom of exam performance were compared.

Prema (2007) selected a sample of 450 higher secondary students from different managements to find out the relationship between study habits and academic achievement. The study highlights the gender difference in academic achievement favoring girls for better study habits. It also revealed that there is a significant difference in study habits of students studying in government, government-aided and private schools favoring government-aided schools. The study also found that there is a positive relation between study habit and achievement motivation.

Study conducted by Bagongon and Edpalinanad (2009) revealed the effect of study habits on the academic performance of students. The study reveals that no single factor can be definitely pointed out as predicting grades. It has been an inter play of so many factors – gender, I.Q., Study habits, age, year level, parents' educational attainment, Social status, Number of siblings, birth order etc. The findings revealed that study habit is influenced by time management, learning skills and study skills and there by a positive relationship exists between study habit and academic performance.

Vanita (2011) observed that even a good student who has the potentiality to achieve better may not be able to achieve as per expectations without good study habits. The general purpose of the study was to measure study habits of the secondary and higher secondary school students of Amrawathi district of Maharashtra State. The sample of 160 male and female students was selected randomly. Study habits inventory developed by Palsane and Sharma was used as a tool for data collection. The study concluded that students from Secondary School have more favorable study habits than Higher Secondary school students. The study also revealed that there is a positive relationship between study habits and academic achievement of secondary and higher secondary school students.

Mashayekhi and others (2014) investigated 220 undergraduate students of Islamic Azad University Jiroft Branch, randomly selected and studied from both College of Humanities and Agriculture. The results showed that 89% of students have relatively desirable study habits and between the two variables, study habits and academic achievement, there was a correlation.

3.3 Critique

As the studies reviewed pertaining to achievement motivation, study habits and performance of students based on gender difference are inconclusive, it necessitates further investigation in the same lines.

IV. STATEMENT OF THE PROBLEM

The review done from the available relevant literature, relating to the present research area, led the investigator to conceptualize the problem in an attempt to fill in the lacunae found.

Thus the problem is stated as here under:

Achievement Motivation, Study Habits and Academic Achievement of Students at the Secondary Level

V. OBJECTIVES OF THE STUDY

- (i) To investigate if there is any significant relationship between the select variables of students in state, matriculation and central board schools at the secondary level;
- (ii) To investigate if there is any significant difference in achievement motivation, study habits and academic achievement of students in state, matriculation and central board schools at the secondary level;
- (iii) To investigate if there is any significant difference in achievement motivation of boys and girls in state, matriculation and central board schools at the secondary level;
- (iv) To investigate if there is any significant difference in study habits of boys and girls in state, matriculation and central board schools at the secondary level and
- (v) To investigate if there is any significant difference in academic achievement of boys and girls in state, matriculation and central board schools at the secondary level.

VI. HYPOTHESIS FORMULATED

- (i) There is a significant relationship between the select variables of students in state, matriculation and central board schools at the secondary level;
- (ii) There is no significant difference in achievement motivation, study habits and academic achievement of students in state, matriculation and central board schools at the secondary level;
- (iii) There is no significant difference in achievement motivation of boys and girls in state, matriculation and central board schools at the secondary level;
- (iv) There is no significant difference in study habits of boys and girls in state, matriculation and central board schools at the secondary level;
- (v) There is no significant difference in academic achievement of boys and girls in state, matriculation and central board schools at the secondary level;

VII. METHOD OF INVESTIGATION

As the method of investigation is designed on the basis of the problem, objectives and hypotheses formulated, it warrants a psychometrically sound design, procedure, tools and execution. The investigation is planned to verify hypotheses using suitable tools and appropriate statistics for data processing.

7.1 Research Design

The present study deals with the analyses of achievement motivation, study habits and academic achievement among students studying in different systems, namely, state, matriculation and the central board schools, at the secondary level.

7.2 Sample selected

From the target population, a sample of 457 students was chosen from the secondary level studying in different categories of schools, namely, state, matriculation and central board schools by random sampling technique. The chosen sample comprised of 141 students from the state board, 159 students from matriculation board and 157 students from the central board schools.

7.3 Tools used for the study

The research tools used for the present study to analyze the achievement motivation, study habits and academic achievement of students in different systems of education at the secondary level are as follows:

- (i) Achievement Motivation Scale (Beena, 1986)
- (ii) Study Habits Inventory (Gopal Rao, 1974)
- (iii) Academic Achievement Test

VIII. ANALYSES OF DATA

The results of the analyses of data collected are compiled and presented in tables below.

Table-1: Analysis of Correlation between the Select Variables of Students at the Secondary Level

	Achievement Motivation	Study Habit	Academic Achievement
Achievement Motivation	1	0.68**	0.77**
Study Habit	X	1	0.87**
Academic Achievement	X	X	1

**significant at 0.01 level

In the above table (Table-1) all variables selected for the present study, namely, achievement motivation, study habit and academic achievement are found to correlate significantly positively among themselves.

The analysis of variance commonly referred to by the acronym ANOVA, at its lowest level is essentially an extension of the logic of t-tests to those situations where comparison of means of three or more samples, called independent groups concurrently becomes essential.

The following set of tables (Table-2 to Table-2c) exhibits the analysis of variance of students in different categories of schools, following different systems of education at the secondary level, with regard to the select variables.

Table-2: Analysis of Variance of Achievement Motivation, Study Habits and Academic Achievement of Students in different Categories of Schools at the Secondary Level

Variable	Source of Variation	df	Sum of Square	Mean of Sum of Square	F-ratio
Achievement Motivation	Between groups	2	45164.68	22582.34	285.87**
	Within groups	454	35863.41	78.99	
	Total	456	81028.09	-	
Study Habits	Between groups	2	438640.86	219320.43	427.14**
	Within groups	454	233114.71	513.47	
	Total	456	671755.57	-	
Academic Achievement	Between groups	2	98949.46	49474.73	1092.16**
	Within groups	454	20566.12	45.30	
	Total	456	119515.58	-	

**significant at 0.01 level

In Table-2, for the analysis of variance, different categories of schools are treated as different groups. From the F ratios, it is seen that there is a significant difference in achievement motivation, study habits and academic achievement of students in different categories of schools at the secondary level.

In order to establish the actual degree of difference between the students belonging to different categories of schools namely, state, matriculation and central board schools, critical ratios were worked out and the actual difference between the mean scores was established. The tables (Table-2a to Table-2c) presented below thus indicate the mean difference between students in the different categories of schools at the secondary level.

Table-2a: Statistical Analysis of Means of Achievement Motivation of Students in State, Matriculation and Central Board Schools at the Secondary Level

Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	141	58.62	10.65	0.89	1.11	2.93*
Matriculation Board	159	61.89	8.58	0.68		
State Board	141	58.62	10.65	0.89	1.04	21.42**
Central Board	157	81.10	7.30	0.58		
Matriculation Board	159	61.89	8.58	0.68	0.89	21.41**
Central Board	157	81.10	7.30	0.58		

*significant at 0.05 level

From the above table (Table-2a), it is evident that the central board school students are significantly better in their achievement motivation when compared to the state and matriculation board school students at the secondary level.

Table-2b: Statistical Analysis of Means of Study Habits of Students in State, Matriculation and Central Board Schools at the Secondary Level

Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	141	65.15	11.81	0.99	1.72	17.85**
Matriculation Board	159	95.89	17.15	1.36		
State Board	141	65.15	11.81	0.99	2.91	26.10**
Central Board	157	141.20	32.72	2.61		
Matriculation Board	159	95.89	17.15	1.36	2.93	15.44**
Central Board	157	141.20	32.72	2.61		

**significant at 0.01 level

It is evident that the central board students are significantly better in their achievement motivation when compared to the state and matriculation board school students at the secondary level.

Table-2c: Statistical Analysis of Means of Academic Achievement of Students in State, Central and Matriculation Board Schools at the Secondary Level

Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	141	43.57	3.62	0.30	0.70	24.14**
Matriculation Board	159	60.50	7.59	0.60		
State Board	141	43.57	3.62	0.30	0.72	50.43**
Central Board	157	79.97	7.85	0.62		
Matriculation Board	159	60.50	7.59	0.60	0.86	22.40**
Central Board	157	79.97	7.85	0.62		

**significant at 0.01 level

It is evident that the central board students are significantly better in their academic achievement when compared to the central, matriculation and state board school students at the secondary level.

Achievement motivation, study habits and academic achievement of boys and girls at the secondary level in different categories of school are analyzed and presented in tables (Table-3a to Table-3c) are presented here under.

Table-3a: Statistical Analysis of Means of Achievement Motivation of Boys and Girls in State, Matriculation and Central Board Schools at the Secondary Level

	Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	Boys	65	60.54	11.92	1.47	1.78	1.99 ^{NS}
	Girls	76	56.99	9.20	1.05		
Matriculation Board	Boys	80	56.00	7.07	0.79	0.98	12.01**
	Girls	79	67.85	5.24	0.58		
Central Board	Boys	77	76.71	5.03	0.57	0.94	9.13**
	Girls	80	85.33	6.33	0.74		

NS- not significant

**significant at 0.01 level

From the above table (Table-3a), it is observed that is no significant difference between boys and girls in state board schools at the secondary level. The girls are significantly better than the boys in matriculation and central board schools at the secondary level with respect to their achievement motivation.

Table-3b: Statistical Analysis of Means of Study Habits of Boys and Girls in State, Matriculation and Central Board Schools at the Secondary Level

	Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	Boys	65	64.18	11.26	1.39	1.98	0.89 ^{NS}
	Girls	76	65.97	12.28	1.40		
Matriculation Board	Boys	80	85.85	11.84	1.32	2.20	9.17**
	Girls	79	106.05	15.67	1.76		
Central Board	Boys	77	129.79	24.90	2.83	4.92	4.56**
	Girls	80	152.18	35.62	3.98		

NS- not significant

**significant at 0.01 level

There is no significant difference between boys and girls in state board schools at the secondary level. The girls are significantly better than the boys in matriculation and central board schools at the secondary level with respect to their study habit.

Table-3c: Statistical Analysis of Means of Academic Achievement of Boys and Girls in State, Matriculation and Central Board Schools at the Secondary Level

	Variable	Sample Size	Mean	SD	SEM	SED	CR
State Board	Boys	65	41.94	2.95	0.36	0.55	5.44**
	Girls	76	44.97	3.57	0.41		
Matriculation Board	Boys	80	54.25	4.16	0.46	0.67	18.73**
	Girls	79	66.84	4.30	0.48		
Central Board	Boys	77	76.00	3.67	0.41	1.09	7.15**
	Girls	80	83.80	8.86	0.99		

**significant at 0.01 level

In the above table (Table-3c), it is seen that the girls are significantly better than the boys in state, matriculation and central board schools at the secondary level with respect to their academic achievement.

IX. DISCUSSION

In the present study, a significant difference is found in the achievement motivation, study habits and academic achievement of students in different categories of schools following different systems of education, namely, state, matriculation and central board schools at the secondary level. The students belonging to central and matriculation board schools are found to be significantly better in their achievement motivation and study habits when compared to the students in the state board schools. The students in central and matriculation board schools are exposed to better facilities both at home and school. At school the infrastructure facilities like, classroom arrangement, technology, library and resource centers helps teachers to perform better and as a result the students are better motivated with enhanced study habits than when compared to the students who are in state board schools. The state board schools governed by the State Government do not have adequate facilities in schools due to lack of funds allotted for education by the Government. The poor infrastructure facilities with inadequate technology or no technology support in classrooms does not adequately motivate students or develop desirable study habits, compared to their counterparts in other two categories of schools.

Further, the students in central board and matriculation board schools are given adequate training for better personality development with the help of teachers and counselors in the school campus. This enables them to grow into better with not only good academic track record but into better personalities with a higher level of motivation and study habits when compared to the students in state board schools.

Most studies show that, on average, girls do better in school than boys. Girls get higher grades and complete high school at a higher rate compared to boys. Standardized achievement tests also show that females are better at spelling and perform better on tests of literacy, writing, and general knowledge (National Center for Education Statistics, 2003). In the present investigation, it is found that the girls in all the three systems of education are found to be significantly better in their achievement motivation and study habits and thereby academic achievement when compared to the boys in the same schools.

In our Indian culture, though today both boys and girls are given equal opportunities to study, it is the boys who are usually permitted to return home late and take up much of outdoor activities. Girls on the other hand are not permitted much to return home late or take up outdoor activities. Girls being under the close supervision of parents, elders at home and teachers in schools are exposed to many kind of activities, like extensive reading, conducting experiments, planning for projects and so on. These activities, both curricular and co-curricular that they carry out under the close supervision of their mentors with adequate counseling and required support at all times helps them to develop a better achievement motivation and study habits and thereby their academic performance also.

X. CONCLUSION

At the secondary level, students select the groups and subjects of their interest to continue in their further studies. But it is very unfortunate that not all students are able to perform satisfactorily in class and there is considerable percentage of students who accomplish little in class. According to Monte and Lifrieri (1973), these students may have the desire to achieve and have the ability to accomplish the task, but feel the accomplishment has too little or no value and feel doing it is not worthy. Others may fear that they are not capable of completing the required task, so they do not begin. They feel it is better to score a lower grade than to prove they do not have the ability to correctly complete the given task. Atkinson and Feather (1966) describe this rational as Achievement Motivation. It is typically a non-conscious process in which a decision how to act or not to act is made. Spence (1983) and Wlodkowski (1985) state that achievement can bring benefits, and failure can often bring shame. Atkinson (1974) and Alschuler (1973) added that it is only a small number of students who fall into those categories of little accomplishment.

Thus the teacher plays a crucial role in the classroom, since both, achievement motivation of students and classroom climate depend on teachers' attitude and mental caliber. When the relationship between the teacher and the learner is one of friendliness, maximum learning takes place and learning becomes an enjoyable experience to the learner.

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