

SOCIO-ECONOMIC BACKGROUND AND STUDY HABITS AS IMPORTANT CORRELATES OF ACADEMIC ACHIEVEMENT IN MATHEMATICS

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Abstract

In today's world, the perspective of education has completely changed. People understand that they will only earn if they learn. Future career is speculated by seeing the present academic achievement of the learner. Even the academic achievement is considered as a base for seeking admissions in most of the schools and colleges. It is also considered while getting jobs. Future success of the learners is gauged in terms of their academic achievement in school. Even the various commissions and committees could not deny the importance of academics in the holistic development of the learners. Therefore, they suggested the different teaching-learning approaches and evaluation techniques in order to assess the knowledge and skill acquired by the learners. Academic achievement is basically the measure of success in subject areas of the learners. As mathematics is one of the important school subjects and interrelated with the other school's subject so, the academic achievement of mathematics is of great concern for all. Keeping the importance of academic achievement of mathematics in mind, it is essential to find out the various variables which have impact on it. Though there are various variables related to cognitive, affective, environmental etc. which have impact on academic achievement of learners. Out of these variables, socio-economic background or status and study habits are the two important correlates. Therefore, it is essential to study the academic achievement of students in mathematics in relation to their socio-economic background and study habits. Though the age of students at secondary level is very crucial and at this age the students are not very immature. It is the right age to develop good study habits in them. Therefore, it is better to study the impact of these correlates on academic achievement at secondary school level. The study will help the stakeholders to know the factors which impede the academic growth of the learners hence giving them opportunity to enhance students' academic performance.

Keywords: academic achievement, socio-economic status, study habits, mathematics, impact

INTRODUCTION

We live in a country of science and technology. It has touched almost every walk of life whether rural or urban. All the researches and innovations are based on it. In this condition mathematics has an important role to play. Science and technology are highly interrelated to mathematics. We cannot do any researches without using mathematics. Even in day-to-day life mathematics has an important role to play. Therefore, mathematical thinking needs to be inculcated in the learners especially among the adolescents'

learners in order to make them capable to compete this rapidly changing world.

NCF 2005 also emphasizes on developing children's abilities for mathematization as the main goal of mathematics education. And, focuses on the point that as mathematics is a compulsory subject at the secondary stage, access to quality mathematics education is the right of every child. Even in NCF 2020, critical thinking and problem solving is emphasized. In this way mathematics is one of the important subjects in school curriculum.

In order to find whether the objectives of mathematics have been achieved or not assessment should be done. It may be done using different tools and there may be a variety of options for the teachers as well as learners to assess the learning outcomes. One can also assess the learning outcomes of mathematics to a certain extent by knowing the academic achievement of the learners in that particular subject. Achievement test is one of the important tools to find out the level of learning and also to know whether the objectives have been achieved or not.

The mathematics achievement of students has long been a matter of concern for academicians, parents, teachers, curriculum developers and policy makers. The school performance of the students does not depend on mental and physical factor alone rather depend on so many other factors too. Socio economic status, use of computer and multimedia, study habits, personal variables like gender, religion, participation in school activities, subject chosen, interest, language, various institutional factors etc are the factors which also affects the mathematics achievement of students.

These factors are of great theoretical and practical importance in developing curriculum and planning educational programmes or activities to suit the needs of the diverse students. By knowing these factors well in advance, the academic achievement of the students may be improved.

Academic Achievement

Academic achievement is one of the significant ways to assess the students particularly in the present socio-economic and cultural context. Achievement is gauged in all the three domains of learning cognitive, affective and psychomotor. In general terms achievement refers to the performance outcomes that indicate the extent to which predetermined specific goals have been accomplished. To maximize the achievement within a given set up is therefore the goal of every educationist whether a teacher or an educational administrator.

The reason for much researches on academic achievement is primarily because it has been noted that adult success in terms of occupation and income greatly depends on educational attainment.

It is also believed that student's achievement is directly linked with the goal of schools. The major task of schools to make students knowledgeable and skilled so as to make them self-reliant and survive in this dynamic world. In addition to this it is also considered that academic achievement can result in a better quality of life for students as they enter adulthood.

Even though enhanced academic achievement may not be directly linked to the attainment of a more equitable society (Jencks et al. 1972), it is possible that it may ultimately result in pressures for a more equitable, occupational and income structure as those with requisite skills and knowledge are increasingly denied positions for which they are qualified. Increased educational attainment of women is necessary as there are many sectors which lack in equal representation of gender.

Academic achievement is, in general, referred as the degree or level of success or proficiency attained in some specific area, concerning scholastic or academic work.

Correlates of academic achievement

The success of any educational system is viewed in terms of the level of achievement of the pupils associated with it. The achievement may be in cognitive, co native or psychomotor domain. In general, achievement refers to the scholastic or academic achievement of the students in the end of the educational programme or course. To maximize the level of achievement is the goal of every teacher, educationist and educational administrator. That is why so many researches in this topic is being done to provide us aid by looking into what variables personal, home, school etc enhance achievement and what hinder it. It has been indicated that a good number of variables like personality characteristics of the learners, the socio-economic background or status from which they come, the organizational climate of the school, study habits of the learners, curriculum planning etc influence achievement in different degrees. These variables are generally referred as correlates of achievement. All the educationist head of institutions, teachers, curriculum planners, parents, guardians and others who are involved in helping the students achieve better would like to have a knowledge about the extent of influence these correlates exerts on academic achievement.

The focus is to study few correlates among the large number of variables which exert influence on the achievement by choosing the secondary stage with a select of two variables in relation to academic achievement. In general, different psychologists view achievement with different perspective like from cognitive view it is an act of intelligence, from personality point of view motivation, self-concept, anxiety etc have great impact on achievement where as some educationist hold the preposition that achievement is greatly related to the institutional activity.

The Dictionary of Education support this point and adds new idea to it and says, "Academic achievement is knowledge attained or skills developed in the school subjects usually designated by test scores or by marks assigned by teachers or both." There are several factors which are responsible for the level of achievement, they include physical, mental, social and environmental attributes of the student, the atmosphere of school, home and society in which the student lives in. These factors are varied in number and nature. These factors may have positive or negative impact on achievement of the students.

Challenge of Education (1985) document on education says," the major challenge before educational planner is to devise an educational system that would on one hand meet the growing demand for secondary and higher secondary education and on the other ensure that the objective of qualitative viability does not get diluted."

Achievement cannot be influenced by a single variable rather influenced by different variables and the influence is different at different stages of education. Therefore, achievement cannot be explained by one single model applicable for all stages of

education in all places. we may have to develop models which are subject, area and client specific. Yet a general paradigm could be possible that suits the varying conditions and our research should focus on developing such general paradigm which may be applicable for diverse learners. Among all these variables the present study considers socio-economic status and study habit as the predicting variable to academic achievement because of their significance.

socio economic background as a correlate to academic achievement

From a long time, the researchers have been actively engaged in finding out the ways to improve academic excellence. It has been revealed through survey that the whole structure of formal education is standing upon the contribution of parents and family of the students. The process of education has strengthened with the obtained contribution from parents and family and process of education has gone erratic where this contribution is missing.

Indian society is stratified on different basis whether it is education, power, money, class caste religion, region etc. Thus, it is natural for the researcher to investigate and find out the extent to which such a class distinction in the society is influencing the scholastic achievement of the students. Socio-economic status which has viewed in terms of home conditions, father's education, mother's education, parental income, resources in the family, type of family etc has been an important predictor to academic achievement since long as has been pointed out by many researchers. Satyanandam(1969) considered two aspects of socio-economic status namely parent's education and economic status to find out that children belonging to different strata of upper, middle and lower economic classes differed significantly from each other in respect of academic achievement. Chatterjee et al (1978) found parent's income, education and family size to be important predictor to achievement.

It is very unfortunate that we consider school to be an isolate entity. We put all the responsibility regarding the development of the children especially scholastic achievement of the children on schools but forget about the contribution of family towards it. Family or the related aspect like socio-economic background has its own part to play. Academic achievement of children does not merely depend on the schools rather also depend on other factors like socio-economic status of the family from which the child belongs. Every child enters the school with his/her own set of certain knowledge of language, habits, interest, level of comprehension etc. The child does not gain knowledge only through the formal setting of school rather also acquire knowledge, skill and values through the environment family, neighbourhood, peers etc in order to achieve scholastically. So, family is one of the important factors that is responsible for the academic achievement of the children. Therefore, much emphasis has been provided for a long time to study the variable namely socio-economic status of family of which child belong in order to predict the influence that it exerts on the academic achievement of the child. So, it proves to be very logical to research in depth about the influence of socio-economic status on the academic achievement of the child. Shukla

(1984), Mehrotra (1986), Mishra (1986) found a positive relationship between socio-economic status and academic achievement of the students. In the study conducted at the CIIL Srivastava and Ramaswamy (1986) found that the effect of Socio-economic status on academic in mathematics and social studies was significant. According to Sharma (1984) adolescents of high socio-economic status possessed high scholastic achievement. As per Sontakey (1986), the high achievers had a high socio-economic status and they belong from highly educated families. Trivedi (1987) found that students belonging to upper socio-economic status groups showed better academic achievement than students belonging to lower socio-economic status groups. Rajput (1984) established that socio economic status of the students affected their achievement in mathematics. Though there is no difference in the high and average socio-economic groups but high and low socio-economic groups did differ significantly on achievement in mathematics. As per the study of Das (1975) conducted in West Bengal, the socio-economic status was one of the primary factors responsible for low achievement in general science.

Gopalacharyulu (1984) conducted the study on the relationship between certain psycho-sociological factors and achievement of student teachers in teacher training institutes of Andhra Pradesh and showed that socio-economic status and caste influenced the total achievement as well as achievement in theory and practical separately of the student teachers. Parida, Sucharita (2003) also concluded that there exists significant difference between the socio economic status and academic achievement of students. This indicated that the level of achievement is different due to high and low socio-economic status group of students.

Study habit as a correlate to academic achievement

The academic achievement of the students depends on many factors other than low intellectual capacity. One of the factors which affects the academic performance of even the bright students is the poor study habits. Study habits are the behaviour of an individual related to studies. Learner's individual ways of exercising and practicing their abilities for learning during their studies are termed as study habits of the learners. It is the pattern of behaviour adopted by the learners in the pursuit of their studies.

Study habits are the ways which we adopt while studying. Good study habits include being organised, keeping good notes, reading textbooks, listening in class and working everyday while bad study habits include skipping class, not doing one's work, watching T.V or playing video games instead of studying and losing one's work. The manner with which we consistently studying for our school or college or even for the next day's lessons are termed as study habits.

The word study habit is made up of two words- study and habit. According to Oxford Advance Learner Dictionary of current English (2002, P1292), "Study is the activity of learning or gaining knowledge either from books or by examining them in the world."

According to Funk and Wagnalls Standard Desk Dictionary (1984, P288),” habit is a mental or moral disposition. It is an act or practice so frequently repeated as to become almost automatic.”

The study habits are those activities that are unconsciously performed by a learner during the learning process.

Study habit is one of the important factors that affect the student’s understanding regarding any subject. Students having good study habits may have greater chance of getting good grades as compare to students having poor study habits. Study habits may be affected by outside interference like environment, learner’s attitude, teachers, books and reading material, place where the child studies and many such other factors which influence the concentration of the learner and these factors interfere in developing good study habits in learners.

Nagaraju(2004) in his book entitled “Study habits of secondary school students” discussed some factors that affect the study habits of the individual which are as follows:

1. Home: It is the first school of the child and mother is the first teacher. The physical, economic, cultural and emotional climate of the home impacts his/her study habits. As study habits are the part of personality of any individual and environment has a great influence on personality. So, the home environment plays a very important role in developing good study habits in learners.
2. School: School is the place, where the child acquire knowledge in a formal way. He /She also learns how to acquire that knowledge. It is the place where child learns to be disciplined himself /herself. Teachers and peers have great impact on the study habit of the child.
3. Curriculum: It should be developed keeping in view the need, interest, ability, mental level etc of the learners. If the curriculum would be well developed then the students would take interest in the learning experiences that is provided to them. They would feel motivated in their studies. They may develop good study habit during their learning process to improve their academic achievement.
4. Personality: Personality comprises of the inner as well as outer aspects of an individual. Habits, character, attitudes etc. comes under personality. If a child is maladjusted then he/she would not be able to concentrate on his/her studies and may develop poor study habits. Personality has a great influence in developing study habits.
5. Intelligence: Intelligent students generally have good study habits and acquire good positions in the class. I Q level has also role to play in developing study habits.
6. Community: It provides resources like library, community centre, information centres etc which give opportunities available for the development of study habits.
7. Others: In addition to the above-mentioned factors there are few other factors like sex, caste, physical and social environment of students, level of aspiration, attitude,

teaching methods, lack of maturity and discipline, socio-economic status, students’ motivation, nutrition etc which affect the individual’s study habits.

As per Apps (1982), Reed (1996), Rooney& Lipume(1992) sound and persistent study habits reduce test anxiety, enhance student’s ability, improve his performance and develop confidence in him.

Study habits represents an individual’s typical way of information processing and absorbing. It represents the individual’s typical mode of attending, presenting, perceiving, thinking, remembering and problem solving. It can also be defined as the regular tendency and practice that one depicts during the process of gaining information through learning.

Strategies to improve study habits

1. Avoid trying to finish all of your learning in one sitting.
2. Schedule when you will study.
3. Study at the same time.
4. Every study session ought to have a clear objective.
5. Never put off a scheduled study session.
6. Begin with the toughest subject first.
7. Review your notes each time before beginning an assignment.
8. Do not get distracted while studying
9. Make use of study groups wisely.
10. Review the notes, assignments and other course materials over the weekend.

Therefore, good study habits entail scheduling regular, focused study sessions, regularly preparing lessons, paying attention in class and reviewing previous assignments immediately after the class has ended, adopting a sitting position while studying and developing a schedule and work plan. Developing good study habits can help learn things that will help to deal with different situations, interpret concepts, form new opinions and come up with new ideas.

Conclusion

We see that academic achievement of the learners are predictive of their future career. Academic achievement basically depicts the level of knowledge and competency achieved by the learner in different subjects. Mathematics is the mother of all sciences and related to many of the school subjects. Therefore, it is important to enhance the performance of the learners in mathematics. Academic achievement of the learners does not merely depend on the cognitive and physical factors alone rather depends on so many other factors too. Out of the various factors socio- economic status and study habits are two important factors which needs to study in depth. It has been found by many of the researchers that there is a significant effect of socio-economic status on academic achievement of the learners in mathematics. It has been also found by most of the researchers that learners with good study habits perform better academically than the learners with poor study habits. Parents, teachers, educators, policy makers, curriculum planners and administrators help the learners to achieve better by knowing the impact of these factors well in advance. Impact of the

variables can be minimized which impede the development of learners.

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