



**TO STUDY THE LEVEL OF ASPIRATION AND SCIENTIFIC CREATIVITY OF LOW AND HIGH ACHIEVERS
OF SECONDARY SCHOOL STUDENTS**

DR. SURESH BABU

ASSOCIATE PROFESSOR

K.S.C.T.E. BELLARY

KARANATAKA

Abstract

The purpose of this research is to explore the degree of ambition and scientific creativity among students in secondary school, with the intention of differentiating between students who achieve low and high levels of academic success. The process of education is the means by which we might establish a society that is a learning society. The knowledge, attainment, and skills that students acquire in school are evaluated with the assistance of examinations, which can be made by teachers or by standardized tests. It plays an important role in the life of an individual at every stage, but it also plays a role in determining his status in society. Academic achievement is the most important goal of education for students. Through the course of this research, an effort has been made to analyze the amount of desire that they possess. However, the word "achievement" refers to the level of success that has been achieved in certain specific activities, particularly in the context of academic performance. A total of 600 pupils from the Jammu area who were enrolled in the ninth grade participated in the research project. In order to determine the level of education aspiration, the Educational Aspiration scale (EAS) form, which was developed by Dr. V.P. Sharma and Dr. (KM) Anuradha Gupta, was used as a measuring instrument. Among the study topics that educational psychologists are interested in investigating is, without a question, the level of educational aspiration. In this research, an effort has been made to investigate the levels of academic accomplishment of secondary school students in connection to their educational goals and objectives. After doing research, it was shown that the correlation between educational goals and academic accomplishment was quite weak.

keywords: *Aspiration, Achievers, Secondary, School, Students*

Introduction

In the constantly changing environment of global education, it has become more crucial to cultivate in pupils the ability to think creatively as well as to attain high academic accomplishment. Secondary school students, in particular, are at a crucial crossroads in their educational journey, when the development of ambitions and creative capacities may considerably affect their future performance and personal growth. This is especially true for students who may be pursuing further education. When people talk about their level of ambition, they are referring to the goals or standards that they have established for themselves. These are the things that motivate them and cause them to work hard in order to achieve their academic and personal goals. There is a strong correlation between high levels of ambition and increased academic performance, resilience, and a proactive attitude to learning. On the other hand, low levels of ambition might result in students' educational efforts being disengaged, underachieving, and without a sense of purpose within their educational endeavors. The capacity to produce unique ideas, think critically, and solve issues in new ways within the realm of science is an example of scientific creativity. On the other hand, scientific creativity is a subset of creative thinking. A talent such as this is very necessary in this day and age, when scientific and technical breakthroughs play a significant part in the progression of society. Students who develop their scientific creativity not only improve their academic achievement but also better prepare themselves for the problems that they will face in the future in an economy that is driven by information. Furthermore, there is a lack of study that investigates the relationship between the amount of ambition and scientific creativity among secondary school students, especially when comparing students with low and high levels of achievement. This is despite the fact that both characteristics are widely acknowledged to be important. By gaining an understanding of this link, educators and policymakers may get useful insights that can be used to build successful interventions that benefit all kids, regardless of their present academic position. The purpose of this research is to investigate the disparities in the levels of ambition and scientific creativity that exist between students who have poor academic achievement and those who have high academic achievement in secondary schools. The project intends to provide practical suggestions for improving educational practices and establishing a more inclusive and supportive learning environment for all students. This will be accomplished by identifying the elements that lead to higher ambitions and more scientific innovation.

ACHIEVEMENT:

The word "achievement" refers to a significant effort. The phrase connotes the successful completion of anything of significance, which is achieved after a great deal of labor and often in spite of challenges and bravery. It is the execution of a challenging task that, in most cases, requires technical expertise and physical power.

Academic Achievement:

In the context of a school, college, or university, an intellectual success is anything that a student may do or accomplish in a classroom setting, in a laboratory, library, or via field

work. Music and sports are not included in this category. Statements describing the information and abilities that schools are supposed to teach and that students are expected to gain are what are known as academic content standards. These relate to a variety of disciplines that the school is obligated to make arrangements for in order to teach them. Students are required to show that they have attained the information and abilities that are represented in the content standards, and academic achievement standards are specific requirements of how this demonstration should take place. An example of a technique that may be used to define an accomplishment standard is a school that provides a test that is aligned with the context standards. In order to properly comprehend academic success standards, it is important to think of them as a system that contains the following components.

- There are accomplishment level labels for different levels of student success that communicate the degree to which students have achieved in a particular subject area. All of the different levels of student success are included in each achievement level.
- Detailed descriptions of the content-based competences are included in the achievement descriptors. corresponding to each successive degree of accomplishment. success descriptors are a way of describing the knowledge and abilities that students possess at each level of success.
- Reduce the points on an evaluation that differentiates one level of success from another degree of achievement

The definition of achievement may be found in the dictionary of psychology, which was edited by James Dreyer. The dictionary describes achievement as "performance in a Standardized series of tests usually education." The chronological age that corresponds to any certain level on a scale of achievement tests is referred to as the accomplishment age. accomplishment quotient is the ratio of the individual's chronological age to their accomplishment age, represented as a percentage. This ratio is referred to as the achievement age ratio. The exams that are created and standardized to evaluate a student's level of competency in various disciplines are known as achievement tests. 'Accomplishment' is occasionally used in lieu of 'achievement' in every single instance. Tests have a significant position in an educational program because they are the only way by which the accomplishment of goals that have been established for the purpose of teaching the topic can be evaluated. Additionally, tests are used to evaluate the effectiveness of the learning experience that has been given for the students, which is considered to be achievement. When it comes to the educational process, examinations are a very significant component. There are a number of important instruments that are used to provide information on the accomplishments of these kids. These are the only methods that may be used to evaluate the pupils' level of accomplishment. When it comes to students, the session of the Secondary School Certificate (SSC) is the sign that indicates they have completed the first ten years of their education. The test requires the presence of a student who is enrolled in Andhra Pradesh.

Literature Review

Numerous studies have highlighted the significance of aspiration levels in influencing students' academic performance and overall development. According to Schunk and Pajares (2002), students with higher aspirations tend to set more challenging goals, exhibit greater perseverance, and ultimately achieve higher academic success. Conversely, students with lower aspirations often display a lack of motivation and disengagement from academic pursuits (Marjoribanks, 2002).

Scientific creativity has also garnered attention as a crucial component of education, particularly in STEM (Science, Technology, Engineering, and Mathematics) fields. Runco and Jaeger (2012) emphasize that creativity in science involves not only generating novel ideas but also applying these ideas to solve complex problems. This form of creativity is essential for innovation and scientific advancement. Research by Hu and Adey (2002) suggests that students who engage in creative scientific activities develop better problem-solving skills and a deeper understanding of scientific concepts.

However, the relationship between aspiration levels and scientific creativity remains underexplored, especially in the context of secondary education. Some studies suggest a positive correlation, indicating that students with higher aspirations are more likely to engage in creative thinking and problem-solving activities (Beghetto, 2010). Yet, there is a need for more empirical research to understand how these variables interact and influence each other among different groups of students.

Rajesh and Chandrashekharan (2014) carried conducted a research on the educational goals of three hundred high school students from the city of Chennai, taking into account factors such as gender, residential neighborhood, mode of teaching, and the administration of the school. In order to obtain the data, Dr. Yasmin Ghani Khan's Level of Educational Aspiration Test was devised and delivered to the participants. All of the data that was collected was put through an appropriate statistical analysis, and the scores of the sample were constructed. The findings showed that females had greater aspirations than boys did in terms of personal development. In addition, the research found that kids who were taught in English medium schools had greater levels of ambition than students who were taught in Tamil medium schools.

Senthilselvam and Subramonian (2015) I would want to explore the amount of ambitions that are held by students attending higher secondary schools in the Coimbatore District. For the purpose of this paper, a descriptive survey approach was used, and a simple random sample methodology was utilized to choose 150 students from upper secondary schools located within the Coimbatore area. Boys, students from metropolitan areas, students from joint families, students enrolling in the Arts discipline at NCC, and students whose parents have completed college level education were found to have a higher degree of desire, according to the findings. In general, it was discovered that criteria such as gender, location, and the kind of family did not have a major influence on the educational goals that upper secondary school students had established for themselves.

Chauhan (2013) The purpose of this study was to evaluate the effect that the amount of ambition plays in predicting academic success among students in secondary school. Six hundred students were chosen at random from among the several public and private secondary schools to make up the sample. It was determined that the pupils' degree of ambition could be evaluated with the use of Sahiand Bhargava's degree of ambition Scale. Both correlation and stepwise multiple regression analysis were used in order to determine the most powerful predictor of academic success and the meaningful link between the two. The findings of the research indicated that there is a substantial and favourably correlated association between the amount of ambition and academic accomplishment.

Joshi (2014) An effort was made to determine the degree of educational aspiration among students attending secondary schools in the Porbandar district population. The selection of 400 kids from both public and private institutions was accomplished via the use of simple random methods. The Educational ambition Scale (Form P), which was designed by Dr. V.P. Sharma and Dr. Anuradha Gupta, was used in order to determine the pupils' educational ambition level. This was done in order to evaluate the degree of educational aspirations. We used the mean, standard deviation, and F test to analyze the data that we collected. The findings of the research showed that there is a substantial difference between boys and girls in terms of their total educational desire. In addition, the study found that kids who are enrolled in Gujarati medium schools had a higher degree of educational aspire.

Sharath and Praveena (2015) investigated the extent of educational goals held by teacher trainees in the Mysuru area, paying particular attention to gender, geographical location, and the sort of institution they attended. Yasmin Ghani Khan was responsible for the design and standardization of the Level of Educational Aspiration Test that was used. For the purpose of computing and analyzing the data that was obtained, the mean, standard deviation, and other inferential statistics, including the t-test, one-way analysis of variance, and Pearson's correlation coefficient, were used. It was discovered by the researcher that 17.8% of the teacher trainees attending B.Ed. institutions in the Mysuru area have a high degree of educational aspiration, while the bulk of them, 82.2%, were found to possess a low level of educational aspiration. The results of this research also showed that the educational goals of B.Ed. college students who are pursuing a career in teaching are not different between urban and rural areas.

On the other hand, the term "level of aspiration" refers to the degree of quality of performance that a person hopes to accomplish in the year 2000. According to Lata (2005), a research was carried out to investigate the educational achievement of students in a variety of school environments. A direct relationship between the atmosphere of the school and the level of education attained by the students was shown to exist, according to the findings of the research. Students who attended schools with an open or closed atmosphere had the greatest disparity in their educational achievement, according to the findings of the study. It was discovered that there was a considerable gap between the educational achievement levels of students who attended schools with a paternal educational atmosphere and those who attended schools with an independent educational climate. It was discovered that the other

ways of educational success of diverse school climates fell somewhere in the middle of these two extreme categories.

Marjoribanks, Kevin (2005) did a research with the purpose of determining whether or not there is a correlation between educational goals and educational success among young people in Australia who come from a variety of ethnic and socioeconomic status backgrounds. He discovered that the combination of family background and adolescent aspirations had significant associations with the educational attainment of young adults. Furthermore, he discovered that there were gender differences in the linear and curvilinear nature of the relationships between family background, adolescents' aspirations, and young adults' attainment. Furthermore, he discovered that young adults from families with lower social status exhibited ethnic group differences in attainment at all levels of aspiration. On the other hand, young adults from families with higher status exhibited minimal ethnic group differences in attainment at high aspiration levels.

Kaur Pardeep (2007) discovered that teenagers vary greatly in their levels of stress, i.e. on the basis of high and low levels of stress, according to the findings of a research that was done on the influence of stress and educational goals on the academic success of adolescent pupils. The amount of educational goals that kids with high stress and pupils with low stress have is strikingly different from one another. There is no significant difference in the academic success scores of adolescents who are experiencing high levels of stress and those who are experiencing low levels of stress. The degree of educational ambitions that teenagers have has an effect on their academic progress. A substantial relationship between stress, educational goals, and academic success was not found to exist, according to the conclusion reached.

R. Babu, K.Kaliamoorthy (2007) A research was carried out to investigate the level of success in accounting and the educational adjustment of students in higher secondary school. It was the purpose of this study to determine the level of accomplishment that students in higher secondary education had in accounting, as well as their level of educational adjustment. This study aims to determine if there is a significant difference in the academic accomplishment of higher secondary students in accounting and their educational adjustment with regard to the following factors: (a) gender; (b) the location of the school; (c) the education level of the father; and (d) the educational level of the mother. The findings of the research indicate that there are no significantly different levels of educational attainment between the dads and mothers of students in terms of their ability to adapt to their children's educational environment.

Objectives of the Study

1. Compare the levels of scientific creativity between low and high achievers among secondary school students.
2. To investigation on the educational goals that pupils in secondary school have for themselves.

3. To Study the degree of academic success that pupils in secondary school have achieved.

Hypothesis

There is no the connection between the academic success of secondary school pupils and their desire for further furthering their education.

Research design & Methodology

For this particular study, the research technique that was used was the descriptive survey kind. For the purpose of this research, a total of 600 secondary school pupils were chosen at random from among the ninth-grade students who were enrolling in classes under the J&K board. For this research, a sample was selected from among 600 kids who were enrolled in secondary school. One of the standardized instruments that was used in the collection of the data was the Educational Aspiration Scale, which was developed by Sharma and Gupta (2011). The scores representing academic accomplishment were chosen from the record of the previous year.

RESEARCH TOOL

Developed by V.P. Sharma and Anuradha Gupta, the Education Aspiration scale (EAS) form P questionnaire.

COLLECTION OF DATA

The data collection was carried out by the investigator by means of holding personal meetings with the students and distributing the questionnaire by providing them with relevant instructions. For the purpose of gathering the relevant information, a suitable rapport was created.

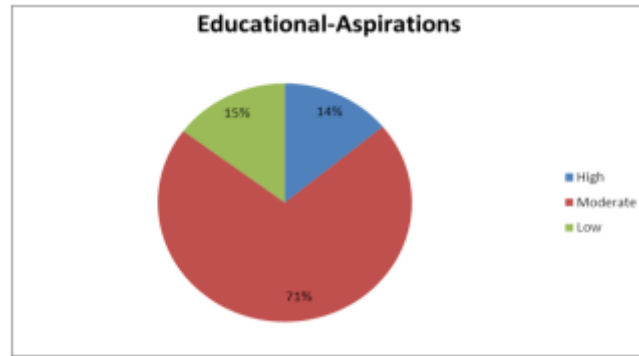
ANALYSIS AND RESULT

The information that was gathered via the use of the aforementioned instruments was then submitted to statistical analysis, and the findings were derived.

Table1: Frequency and percentage of students in secondary school who have educational goals and aspirations

Mental Health Level	Frequency	Percentage
High (Above 67.93)	112	14.00 %
Moderate (60.21to67.92)	570	71.25 %
Low (Below 60.20)	118	14.75%
Total	600	100 %

Graph 1



INTERPERTATION

The percentages of secondary school students that have high, moderate, and low levels of educational aspirations are shown in table 1. Among the total of 600 adolescents who are enrolled in secondary school, 112 adolescents, which is equivalent to fourteen percent of the total, have been identified as having a high degree of educational aspirations, as indicated by a score that is more than 67.93 points. In addition, the table reveals that out of a total of 570 teenagers, 71.25% of them had a moderate level of educational ambitions points. Additionally, the table reveals that 118 teenagers, which accounts for 14.75 percent of the total, have been identified as having poor levels of educational ambitions, with scores that fall below 70.20 points. Table number 2 The product moment correlation developed by Pearson was used in order to investigate the connection between the academic achievement of secondary school students and their educational aspirations.

Table: 2 Examination of the connection between the academic achievements of secondary school pupils and their educational goals and objectives.

Variable	Coefficient of Correlation	Coefficient of Correlation
Educational- aspirations	.07	N.S
Academic achievement		

INTERPERTATION

It is shown in Table 2 that the coefficient of correlation between Educational-Aspirations and Academic-Achievement of secondary school pupils is 0.07. This indicates that the two variables are not significantly related to one another and are not significant together. It is thus

determined that the null hypothesis, which states that "There is no significant relationship between Educational Aspirations and Academic Achievement of Secondary School Students," is maintained. The conclusion that can be drawn from this is that educational aspirations are not a factor in academic achievement. Therefore, it is possible to draw the conclusion that educational aspirations are not the only element that influences the academic achievement of secondary school pupils. Other variables, such as the environment, motivation, and guidance, may also contribute to high academic achievement.

Discussion

The data shown in the table above makes it quite clear that educational aspirations are not contingent upon academic achievement. For this reason, we are skeptical about whether or not school initiatives that are intended to raise the educational aspirations of secondary school students are likely to result in improved academic achievement, particularly if the programs are implemented later in the high school years. The results of this research, which show that there is a minimal association between ambitions and accomplishment at school levels, provide more evidence that it may be pointless to attempt to improve educational aspirations.

Conclusion

In conclusion, the purpose of this research is to investigate the influential factors that influence the degrees of ambition and scientific creativity among students in secondary school. The purpose of this study is to get a knowledge of the differences and correlations between these factors in high achievers and low achievers in order to develop educational interventions that may encourage a learning experience that is more creatively exciting and inspiring for all students. The objective of this research was to investigate the degrees of ambition and scientific creativity among students in secondary school, with a particular emphasis on contrasting individuals who achieved low and high levels of success. This study sheds light on a number of significant discoveries and provides insights into the ways in which these aspects interact with one another and impact one another. In the first place, the study demonstrated that individuals who are high achievers have a tendency to have much greater levels of ambition in comparison to their friends who are poor achievers. It would seem from this that students who have greater expectations and objectives for themselves are more likely to achieve better results in their academic experiences. In addition to this, it highlights the significance of cultivating a culture of high expectations within educational environments in order to inspire all students to attain higher levels of success. In the second place, the research discovered that high achievers had a stronger capacity for scientific inventiveness. In light of this, it may be deduced that academic achievement is often accompanied with an expanded capacity to think creatively and to develop novel solutions to scientific challenges. In order to adequately prepare students for future challenges and employment in STEM domains, it is essential for them to develop their scientific creativity. This highlights the need of educational programs that cultivate creative thinking in addition to standard academic abilities.

REFERENCES

- [1] Ågediseth, Danielsen & Oddrunsamdal (2012) measured teachers' support of basic psychological needs, self-efficacy, achievement goals, life satisfaction and academic achievement. *Indian Educational Review*, Vol.13 (3), Pp 1-15.
- [2] Aggarwal (1997) conducted a comparative study on the effect of parental encouragement upon the educational development of students on the basis of gender." *Educational Research and Reviews*, (May, 2010), Vol. 5 (5): 213-217.
- [3] Aradhya N. and Kashyap A., *The „Fundamentals“ of the Fundamental Right to Education in India*, Books for change, Bangalore (2006).
- [4] Aremu et al. (2006) investigated the relationship among emotional intelligence, parental involvement and academic achievement. *Journal of Indian Education*, Vol. XXXIII, Number-1.
- [5] Arini et al. (2009) aimed at testing whether intelligence and motivation jointly influence high school students' academic achievement. *International Journal of Adolescence and Youth*, (March 2014) Published online: 24 Jan 2014 : 1-19
- [6] Beghetto, R. A. (2010). Creativity in the classroom. In J. C. Kaufman & R. J. Sternberg (Eds.), *The Cambridge Handbook of Creativity* (pp. 447-463). Cambridge University Press.
- [7] Chandra Sri, C. N. Daftaur, and Anjuli (1994), Study Examines the Level of Aspiration of Harijan students from a Socio-Psychological perspective, sixth survey of *Educational Research Vol-II* (493).
- [8] Garrett. H.E, (1991) *Statistics in psychology and education*, Bombay: Yakils, Feffer and Simons Ltd.
- [9] Hassan D. Rao, Appa A.V. (1998), *Relationship Between Study Habits, SocioEconomic Status And Academic Achievement of Class 10th Students*, *Edutracks*, Vol-11, No-12, New Delhi: Neel Kamal Publications Pvt. Ltd.
- [10] Hu, W., & Adey, P. (2002). A scientific creativity test for secondary school students. *International Journal of Science Education*, 24(4), 389-403.
- [11] Kaur Parwinderjit (2012), *Educational Aspiration of Adolescents in Relation to their Intelligence*, *International Multidisciplinary e-Journal*, Vol-1(37-42).
- [12] Marjoribanks, K. (2002). *Family and school capital: Towards a context theory of students' school outcomes*. Springer Science & Business Media.
- [13] Mcmillen Curtis (2004), *Conducted a Study, Educational Experiences and Aspirations of Older Youth in Foster care*. *Sixth Survey of Educational Research*, Vol.-2 (395).
- [14] Prakash, V (1984) *A study of the factors affectively level of aspiration*, PhD Abstract Edu., Kuru.University.
- [15] Rao D. Bhaskar, Hanumantha K. (2002) *Educational Aspirations of Secondary School Students*, *Edutracks*, Vol-11, No-12, Neel Kamal Publications Pvt. Ltd. New Delhi, (39-40).
- [16] Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92-96.

- [17] Sandeep,R.K.Sharma (2004), „A study of level of aspiration, academic achievement and self-concept of secondary school students in eastern zone of Nagaland. Career Research Journal Vol 18 No.414.
- [18] Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. S. Eccles (Eds.), Development of Achievement Motivation (pp. 15-31). Academic Press.
- [19] Singh Y.G (2011), Studied Educational Aspirations in Secondary School Students, International Referred Research Journal,Vol.-III(35-36).
- [20] U.N. General Assembly, 55th Session. “United Nations Millennium Declaration.” (A/55/L.2). 8 September 2000. (Online) Available: www.un.org/millennium/declaration