

# ROLE OF SOCIO-ECONOMIC STATUS IN SENIOR SECONDARY SUBJECT SELECTION: A STRUCTURAL EQUATION MODELING APPROACH

**Preeti Gupta : Research Scholar , Lingaya's Vidyapeeth ,Faridabad**  
**Dr. Sakshi Sharma : Assistant Professor ,School of Education , Lingaya's Vidyapeeth, Faridabad**

## Abstract:

This study looks at how socio-economic status (SES) affects subject selection among senior secondary students. We use a Structural Equation Modeling (SEM) framework to explore the relationships among factors like family wealth, occupation, income, financial security, social standing, physical assets, and political power. We surveyed 120 students from Delhi /NCR were chosen through stratified sampling to ensure varied SES representation. The SEM model showed a good fit (CFI = 0.92, RMSEA = 0.058,  $\chi^2/df$  = 2.1), confirming the analysis is strong. The results indicated that occupation has the most significant positive effect on financial security ( $\beta = 0.37$ ), while family influence greatly affects subject selection ( $\beta = 0.31$ ). Additionally, income affects social standing ( $\beta = 0.33$ ), which then impacts physical assets ( $\beta = 0.32$ ). There is also a feedback loop between subject selection and occupation ( $\beta = 0.13$ ). These findings reveal that financial security and family influence are the key factors in students' academic choices. Based on these results, we recommend improving career counseling programs, providing financial help for resource-heavy subjects, raising parental awareness, and ensuring fair access to educational resources. This offers practical insights for policymakers to reduce SES-based gaps in education.

**Keywords:** SES, subjects, role, students, socio-economic status.

**How to cite this article:** Gupta P, Sharma S. Role of Socio-Economic Status in Senior Secondary Subject Selection: A Structural Equation Modeling Approach. *Int J Drug Deliv Technol.* 2026;16(63s):345-351. DOI: 10.25258/ijddt.16.63s.36

**Source of support:** Nil.

**Conflict of interest:** None

## I. Introduction

The shift from junior to senior secondary school is a crucial time in a student's academic life. This stage involves not just deeper academic engagement but also important choices about subjects that will impact their future education and careers. While personal goals and academic strengths are vital to these decisions, increasing evidence shows that a student's socio-economic status (SES) often has a significant but subtle impact. This study explores the complex relationship between SES and subject selection, looking at how factors like parental income, education, and job background can shape students' choices at this vital moment.

Understanding how SES affects subject selection is critical for promoting educational fairness. A just educational system should allow all students, no matter their financial background, to pursue their academic dreams. However, research indicates that inequalities may exist in the current system. Students from lower SES backgrounds may struggle to access certain subjects due to limited exposure, financial barriers, and potentially less guidance from parents about future career paths. These challenges can limit their opportunities and

push them away from subjects that suit their true abilities and interests.

This study aims to highlight these potential inequalities by examining the link between SES and subject selection. By uncovering the factors at work, we can understand better how SES impacts students' views and opportunities in education. The findings could help develop targeted interventions and policy changes that promote a more equitable environment for students from various socio-economic backgrounds.

Ultimately, this study hopes to pave the way for a future where subject selection reflects a student's true potential, freed from the challenges posed by their socio-economic situation. By building a more inclusive educational landscape, we empower students from all backgrounds to make informed choices that lead to a brighter academic and professional future.

This exploration of SES and subject selection goes beyond numbers. It dives into the personal stories behind the data. Consider a student from a low-income home who has a natural talent for science but lacks access to relevant courses due to the costs involved. Or think about a student whose parents may not have the educational

background to guide them in making choices that align with future career opportunities. These examples illustrate how SES can limit a student's educational journey.

By sharing these stories, this study aims to initiate a discussion on the importance of addressing SES's impact on subject selection. A deeper understanding of this issue could help create a more fair and inclusive educational system that allows all students to achieve their full potential.

#### **Objectives:**

This study on the role of socio-economic status (SES) in subject selection for senior secondary students has the following key goals:

- **Investigate the Relationship:** Analyze the connection between a student's socio-economic background, including parental income, education, and occupation, and their chosen subjects in senior secondary school.
- **Identify Potential Inequalities:** Explore how SES might shape student views and access to specific subject choices, revealing inequalities within the educational system.
- **Inform Policy and Interventions:** Offer insights that can help develop targeted strategies and policy changes aimed at promoting educational fairness. These could address potential biases and ensure all students have an equal opportunity when selecting their subjects.
- **Empower Informed Decisions:** Contribute to a more inclusive educational system where subject selection reflects a student's true potential and academic goals, free from the constraints of socio-economic factors.

#### **Hypothesis**

H1: Family wealth positively affects students' subject selection through financial security.

H2: Parental occupation significantly predicts students' financial security, which then impacts subject selection.

H3: Family influence has a direct positive effect on students' subject choices.

H4: Income positively impacts social standing, which enhances access to physical assets and indirectly affects subject selection.

## **II. Review of Literature**

In [1], a study explored how socio-economic status (SES) affects the academic performance of higher secondary students using regression analysis. The study found that SES significantly influences academic outcomes, with higher SES linked to better performance. Key factors in this

relationship include the availability of educational resources, parental education, and home environments that support learning. Students from higher SES backgrounds usually have access to private tutoring, extracurricular activities, and better learning materials, which boost their academic success. In contrast, students from lower SES backgrounds often face challenges like financial issues, limited access to educational resources, and less academic support at home, hindering their performance. The study emphasizes the need to address SES gaps to ensure equal educational opportunities for all.

In [2], researchers investigated the ongoing issue of social class and educational inequality in English schools, comparing it to a "zombie" that haunts the education system despite numerous reforms. The study shows that social class remains a significant factor in educational outcomes, with working-class students consistently underperforming compared to middle-class peers. Contributing to this gap are differences in cultural exposure, parental involvement, and resource access. Middle-class families are more likely to engage in behaviors that benefit their children's education, such as providing educational materials and supporting extracurricular activities, which often favor middle-class students. Reay calls for more comprehensive policies and practices to address these entrenched issues and enhance educational fairness.

In [3], researchers critically assessed the methods used to measure and project the supply and demand of scientists. Their study highlights major flaws and inconsistencies in current approaches, leading to inaccurate forecasts about the supposed shortage of scientists. They argue that many studies overlook the changing nature of the job market and the varied career paths of science graduates. Additionally, the authors discuss how weaknesses in methodology, like inadequate data and simplistic models, contribute to misunderstandings about supply and demand. Smith and Gorarcnall propose stronger research methods that consider a broader range of factors and the realities of the science workforce. Their findings stress the importance of using more accurate and nuanced data for informed decisions on education and labor market policies.

In [4], a qualitative study explored how socio-economic status (SES) affects the academic interests of secondary school students in Meghalaya. The research found that SES has a

significant impact on students' academic interests and motivation. Generally, students from higher SES backgrounds show greater academic interest and motivation due to access to better resources, supportive home environments, and higher parental education. These students often have more exposure to extracurricular activities and receive additional academic support, which further stimulates their interest in learning. Conversely, students from lower SES backgrounds encounter challenges like inadequate resources, financial barriers, and less supportive home environments, negatively affecting their engagement and academic interests. The study highlights the need for targeted efforts to bridge SES-related gaps in academic interest and to promote equal educational opportunities for all students.

In [5], the study explores the connection between socioeconomic background and academic achievement among secondary school students in Hong Kong. It shows that students from higher socioeconomic backgrounds generally perform better than their peers from lower backgrounds. Key factors include access to educational resources, parental involvement, and the quality of schools. Families with higher socioeconomic status (SES) are more likely to create a supportive learning environment, invest in private tutoring, and hold higher educational aspirations for their children. These benefits lead to improved academic performance and higher achievements. In contrast, students from lower SES backgrounds often experience financial challenges, limited parental support, and attend schools with fewer resources, which can hinder their academic success. Pong stresses the importance of educational policies that address these inequalities to give all students a fair chance to succeed.

In [6], researchers examined how socioeconomic status (SES) and parental involvement affect the academic achievements of secondary school students. The findings indicate that higher SES is linked to better academic performance, suggesting that students from wealthier backgrounds tend to achieve more. The study also reveals a strong relationship between parental involvement and academic success. Active parental engagement—helping with homework, participating in school events, and communicating regularly with teachers—was associated with better student outcomes. Notably, the researchers found that increased parental involvement could help alleviate some academic challenges faced by students from lower SES backgrounds. These results highlight

the important role of both socioeconomic factors and parental support in shaping educational success for secondary school students.

In [7], the research looks at how socioeconomic status (SES) impacts the academic performance of secondary school students in rural India. The study indicates that students from higher SES backgrounds often achieve better academic results than those from lower SES backgrounds. It points to factors like access to better educational resources, a supportive home environment, and opportunities for extracurricular activities as key contributors to this gap. Conversely, students from lower SES backgrounds face challenges such as limited access to resources, higher absenteeism due to economic pressures, and lower parental involvement in their education. The findings stress the significant influence of SES on educational outcomes in rural India and highlight the need for targeted efforts to address these disparities and promote equal access to education.

### III. Research Methodology

This study uses a quantitative approach to investigate how socioeconomic status (SES) influences subject selection among senior secondary students. A cross-sectional design was used to capture a snapshot of students' academic choices and the socio-economic factors related to them at a specific moment in time. This design is suitable for identifying patterns and associations between SES indicators and subject preferences without changing any variables. Alongside the quantitative data, some qualitative insights were gathered through informal discussions with students and interactions with teachers to gain a better understanding of contextual factors that may not be fully represented in structured measures. This mixed approach provides deeper insights while maintaining a primarily data-driven focus.

The target population consisted of senior secondary students from various socioeconomic backgrounds. A total sample size of 120 students was chosen for analysis. Questionnaires were given to 140 students, and 120 valid responses were received, resulting in an 85.7% response rate, which is satisfactory for educational research. To ensure fair representation of different socioeconomic groups, a stratified sampling technique was used. The population was divided into groups based on key SES indicators such as parental income, education, and occupation. Students

## ROLE OF SOCIO-ECONOMIC STATUS IN SENIOR SECONDARY SUBJECT SELECTION: A STRUCTURAL EQUATION MODELING APPROACH

were randomly selected from each group (low, middle, and high SES) according to their presence in the population. This method reduced sampling bias and improved the generalizability of the results across different socioeconomic categories.

Data was collected using a structured questionnaire designed specifically for this study, drawing from existing literature and research goals. The questionnaire included five main sections to thoroughly capture relevant variables. The first section gathered demographic information like age, gender, and class. The second section focused on socio-economic indicators, including parental income, education, and occupation. The third section assessed financial security, particularly the students' ability to afford educational resources like tuition, coaching, and study materials. The fourth section examined family influence, including parental expectations, guidance, and involvement in academic decisions. The last section focused on factors influencing subject selection, such as personal interest, career goals, and perceived opportunities linked to different subjects. All items used a 5-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree), allowing for standardized responses.

To ensure the validity and clarity of the research instrument, a pilot study with 20 students was conducted before the main data collection. Feedback from the pilot participants helped identify unclear items, leading to improvements in the wording and structure. Minor changes were made for clarity, ensuring that respondents could easily understand and answer the questions. The reliability of the questionnaire was assessed using Cronbach's alpha to measure internal consistency. Results showed strong reliability across all constructs: Financial Security ( $\alpha = 0.84$ ), Family Influence ( $\alpha = 0.81$ ), Subject Selection ( $\alpha = 0.86$ ), and an overall reliability of  $\alpha = 0.88$ . These values exceed the acceptable threshold of 0.70, confirming the instrument's reliability for measuring the intended variables.

For data analysis, statistical methods were applied using SPSS (Version 26) and AMOS (Version 24). SPSS was used for descriptive statistics, frequency distribution, correlation analysis, and reliability testing, while AMOS was used for Structural Equation Modeling (SEM) and path analysis. SEM helped examine the complex relationships among SES variables and their direct and indirect effects on subject selection. Regression analysis and correlation tests were also conducted to identify key

predictors and the strength of links between socioeconomic indicators and students' academic choices. This combination of analytical tools provided a solid and comprehensive understanding of the research issue.

Ethical considerations were strictly followed throughout the research process to protect participants' rights. Approval for the study was obtained from the Institutional Review Board (IRB) before data collection. All participants were informed about the study's purpose, and informed consent was collected prior to their participation. Participation was completely voluntary, and respondents could withdraw at any time without consequences. Confidentiality and anonymity were maintained by not collecting personal information and securely storing data. These ethical practices ensured the study's compliance with research guidelines for human subjects.

Overall, this research methodology presents a systematic and organized approach to studying how socio-economic factors influence subject selection among senior secondary students. By integrating stratified sampling, a reliable measurement tool, and advanced statistical techniques, the study guarantees both validity and reliability in its findings. The inclusion of quantitative data and contextual insights further strengthens the research, making it useful for educators, researchers, and policymakers looking to address socio-economic disparities in education.

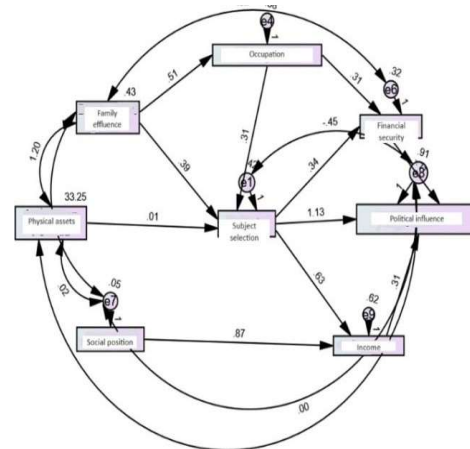


Figure 1. Analysis and interpretation

This diagram shows a structural equation model (SEM) illustrating the relationships among various social and economic factors. The arrows indicate influence direction, while the numbers represent the strength of these relationships. Key elements include "Occupation," "Financial

## ROLE OF SOCIO-ECONOMIC STATUS IN SENIOR SECONDARY SUBJECT SELECTION: A STRUCTURAL EQUATION MODELING APPROACH

security," "Political influence," "Income," "Social position," "Physical assets," "Family affluence," and "Subject selection." "Occupation" significantly impacts "Financial security" (.37) and has a smaller effect on "Income" (.32). "Financial security" strongly affects "Political influence" (.91). "Income" is influenced by both "Occupation" (.32) and "Social position" (.31), with "Social position" affected by "Family affluence" (.05). "Physical assets" are greatly influenced by "Family affluence" (.33) and moderately by "Social position" (.02), which also affects "Subject selection" (.01). "Subject selection" influences "Occupation" (.31), "Income" (1.13), and "Political influence" (.34). The circles around each factor represent measurement errors associated with these variables. Overall, the model demonstrates complex interdependencies, highlighting how occupation, income, and financial security interact to shape social standing and political power.

### IV. Conclusion

This study explored the relationship between a student's socio-economic status (SES) and their subject choices during the important senior secondary school years. The research revealed a complex interaction among factors such as parental income, education, and occupation, which affect the variety of subjects students find accessible and appealing. It appears that students from lower SES backgrounds may have limited options in their subject choices. One possible issue is limited exposure. Families with fewer resources may not have much experience with certain subjects or career paths. This lack of exposure can reduce their understanding of available opportunities and limit their goals. For instance, a student from a family without a background in science might overlook a science-heavy track because they are unfamiliar with the subject and its potential applications.

Financial limitations can also be a significant barrier linked to SES. Costs related to specific subjects, such as advanced science courses that need special equipment or arts programs that require specific materials, can disproportionately affect students from low-income families. These financial pressures may force them into practical choices, potentially steering them away from subjects they would truly enjoy or excel in. Parental guidance is another crucial factor. Parents with higher education may be better able to help their children choose subjects that match future job

opportunities. They can offer insights into educational paths and career options based on their own experiences. In contrast, students from families with lower educational backgrounds may not receive this type of informed guidance, which could limit their understanding of the long-term effects of their subject choices.

Recognizing these significant inequalities in subject selection is essential for promoting fair education. The study's findings can guide the creation of targeted programs that aim to level the playing field for all students. One possible approach is to implement career counseling services that are accessible to all students, regardless of their socio-economic background. By exposing students to diverse subject options and future possibilities, career counselors can help them make informed choices that align with their interests and goals. Financial aid programs designed to address the costs of certain subjects could also be an effective solution. By alleviating financial obstacles, these programs make sure that all students can pursue subjects they are passionate about, even if they require special resources or materials. Initiatives to engage parents are another useful strategy. These programs can help parents, no matter their educational background, support their children's subject selection process. Workshops and resources could provide parents with information on various subjects, career paths, and educational needs. Equipping parents with knowledge can help them guide their children towards making informed decisions based on their strengths and goals, not limitations imposed by SES.

By addressing the impact of SES on subject selection, we can create a fairer education system. This change will allow students from all backgrounds to follow their academic dreams and choose subjects that reflect their true potential. Ultimately, these programs can lead to a more inclusive and successful future where educational opportunities depend on merit and passion, not socio-economic status.

### V. Recommendations

The study's findings, which examined the link between socio-economic status (SES) and subject selection in senior secondary school, showed how various factors affect student choices. These include limited exposure, financial issues, and differences in parental guidance, which can create inequalities in education. However, the following recommendations aim to tackle these concerns

## ROLE OF SOCIO-ECONOMIC STATUS IN SENIOR SECONDARY SUBJECT SELECTION: A STRUCTURAL EQUATION MODELING APPROACH

and create a fairer landscape where subject selection depends on individual potential instead of socio-economic background.

Empowering Students Through Comprehensive Career Counseling:

- Early exposure: Start career counseling programs in junior secondary school. These programs should introduce students to a wide range of subjects, career options, and educational requirements. Interactive workshops, guest speakers from different professions, and field trips can expand students' horizons and spark their interest in various subjects.
- Personalized guidance: Create a system for ongoing, individualized career counseling during senior secondary school. Counselors should work closely with students to identify their strengths, interests, and academic goals. By understanding each student, counselors can give tailored guidance on subject selection that matches their aspirations and future job possibilities.
- Bridging the information gap: Create resources and workshops specifically aimed at educating students from lower SES backgrounds about higher education options and career paths linked to different subject choices. This knowledge can empower them to make informed decisions, even if parental guidance is lacking.

### **Mitigating Financial Barriers to Subject Selection:**

- Needs-based financial aid: Set up needs-based financial aid programs to address the costs related to specific subjects. These programs could offer grants or scholarships for expenses linked to specialized equipment, materials, or extra tutoring needed for certain subjects.
- Creative funding solutions: Investigate alternative funding models such as partnerships with local businesses or donations from alumni to support financial aid for students pursuing subjects of high academic interest. This can help ensure financial issues do not hinder subject selection for students from low-income families.
- Scholarship opportunities: Share information about scholarships available for students pursuing specific subjects. By promoting these opportunities, students can learn about additional financial resources that can help with their educational goals.

### **Enhancing Parental Engagement and Support:**

- Parental education workshops: Host workshops and seminars for parents, especially those from lower SES backgrounds, to give them the knowledge and tools they need to support their children's subject selection. These workshops can provide insights into various subjects, career paths, and educational requirements.
- Developing communication skills: Offer resources and workshops that help parents develop effective communication skills for discussing subject selection with their children. This can empower them to engage in meaningful conversations about their children's aspirations and concerns while providing guidance and support.
- Building partnerships: Encourage partnerships between schools and parent-teacher associations (PTAs) to create collaborative plans that support parental involvement in the subject selection process. These partnerships can foster a more inclusive environment where parents from all backgrounds feel empowered to take part in their children's education.

By implementing these recommendations, we can move toward a more equitable educational system where subject selection reflects a student's true potential and goals. Supporting students with comprehensive career counseling, addressing financial barriers, and enhancing parental support can create a fair environment where all students, regardless of socioeconomic status, have the chance to pursue their academic objectives and succeed.

### **References:**

1. Bhattacharya, K., Joshi, R., & Wani, S. A. (2016). Socio-economic status impact on academic performance of higher secondary students - A regression analysis. *Journal of Positive Psychology and Wellbeing*, 1(2), 92-100.
2. Reay, D. (2006). The zombie stalking English schools: Social class and educational inequality. *British Journal of Educational Studies*, 54(3), 288-307.
3. Smith, E., & Gorard, S. (2011). Is there a shortage of scientists? A critical review of current methodological approaches to measuring and predicting supply and demand. *British Journal of Sociology of Education*, 32(6), 801-819.
4. Kainuwa, Y., & Yusuf, M. A. (2013). Socio-economic status and its influence on the academic interest of secondary school students in Meghalaya: a qualitative study. *Journal of Educational and Community Studies*, 4(2), 141-152.

ROLE OF SOCIO-ECONOMIC STATUS IN SENIOR SECONDARY SUBJECT SELECTION: A  
STRUCTURAL EQUATION MODELING APPROACH

5. Pong, S. L. (2002). Socioeconomic background and academic achievement in secondary schools in Hong Kong. *Educational Research Journal*, 39(2), 151-172.
6. Singh, A., & Kumari, S. (2021). Impact of Socioeconomic Status (SES) on Academic Performance of Students in Secondary Schools of Rural India. *Journal of Education and Practice*, 12(23), 382-390.
7. Jha, A., & Behera, S. K. (2022). Influence of Socioeconomic Status and Parental Involvement on Academic Achievement of Secondary School Students. *Journal of Research and Advanced Studies*, 3(2), 1-8.
8. Indian Culture and Business Management, 175-193.
10. Vadivel, B. (2022). The Impact of Low Socioeconomic Background on a Child's Educational Achievements. *Hindawi Education Research International*, 1-11.

**Bibliography:**

1. Abdinoor, N. M. (2020). Socio-Economic Status, Career Decision-Making Self-Efficacy, Career Maturity and Gender with Secondary School Students in Northern Kenya . *International Journal of Multidisciplinary and Current Educational Research*, 160-167.
2. Akinlolu, M. (2022). Socio-Economic Status, Gender and Outcome Expectations of Career Choices of Students in Construction Programs in South Africa. *Research Gate*, 295-311.
3. Bansal, D. S. (2014). SOCIOMETRY-A CONCEPTUAL INTRODUCTION. *International Journal of Education and Science Research*, 147-153.
4. Famolu, F. B. (2020). Influence of Parents' Socio-Economic Status on Career Choice of Undergraduates in Kwara State, Nigeria: Implications for Counselling. *Jurnal Kajian Sejarah & Pendidikan Sejarah*, 163-189.
5. HANNAH, J.-A. S. (1989). The Relationship of Socioeconomic Status and Gender to the Occupational Choices of Grade 12 Students. *Journal of Vocational Behavior*, 161-178.
6. Misran, N. (2012). Influencing Factors for Matriculation Students in Selecting University and Program of Study. *Procedia - Social and Behavioral Sciences*, 567-574.
7. Munir, j. (2023). The Impact of Socio-economic Status on Academic Achievement. *journal of social sciences review*, 695-705.
8. MURRY, R. T. (2017). INFLUENCE OF SOCIOECONOMIC STATUS ON CAREER DECISION MAKING OF UNDERGRADUATE EMERGING ADULTS. *International Journal of Educational Science and research*, 55-62.
9. Srivastava, A. (2020). Understanding the factors influencing career choices in India: from the students' perspectives . *Int. J.*