

Students' Subject Selection: Exploring the Motivational Factor

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Abstract: Subject selection at the college level is a crucial decision that shapes students' academic pathways and future career opportunities. Choices subjects are influenced by factors such as career aspirations, academic aptitude, parental expectations, peer influence, and school-level resources. In India, shifting socio-cultural trends have increased interest in Science and Arts, while Commerce has seen comparatively low enrolment, with only 14% opting for it over the past decade (The Times of India). This study examines the motivational factors guiding subject selection among 200 higher secondary (10+2) students using a mixed-methods design. Quantitative findings show that career prospects, parental guidance, and personal interest are the most significant influences. Qualitative insights highlight peer influence, academic self-efficacy, and subject availability as additional contributors. Science subjects attract students with strong academic confidence, Arts appeals to those inclined toward creativity and social engagement, and Commerce draws students seeking business-oriented career paths. The study emphasizes the need for strengthened career counselling, informed parental involvement, and equitable access to subject choices to help students make well-aligned academic decisions.

Keywords: Student preferences, subject selection, motivation, Arts, Science, Commerce, higher secondary education.

I. INTRODUCTION

Stream selection after secondary schooling is a defining academic transition that directly influences students' future career opportunities and personal development (Super, 1990). In India and many other education systems, students typically choose among three major streams Arts (Humanities), Science, and Commerce each associated with distinct academic orientations and career pathways. This choice reflects not only students' interests and competencies but also broader socio-cultural, psychological, and institutional factors (Gottfredson, 2002; Rojewski, 2005).

Existing literature highlights that parental expectations, socio-economic background, and educational aspirations play central roles in shaping adolescents' academic decisions (Whiston & Keller, 2004). According to Hill and Tyson (2009), parental involvement significantly influences students' educational trajectories. Societal perceptions further contribute to the hierarchy among streams, with certain fields viewed as more prestigious and linked to high-status careers (Eccles et al., 2004; OECD, 2019).

However, such perceptions may not always align with students' genuine interests or evolving career landscapes (Schoon et al., 2007). Limited career guidance and societal pressure can lead students to make poorly informed decisions, resulting in academic dissatisfaction and misaligned career outcomes (Gottfredson, 2002). Despite increasing awareness of diverse career opportunities across fields, many students still struggle with confusion and pressure during the stream selection process (OECD, 2019).

This study examines students' preferences for Arts, Science, and Commerce, exploring the motivations and constraints that shape their choices. It investigates key factors such as academic performance, personal interest, parental guidance, family income, parental education, and resource availability (Whiston & Keller, 2004; Hill & Tyson, 2009).

II. OBJECTIVES OF THE STUDY

The primary objective of the study is to explore the motivational factor towards students' subject selection.

III. METHODOLOGY OF THE STUDY

A mixed-methods approach was employed to obtain comprehensive insights into students' stream selection. The sample consisted of 200 higher secondary students selected through stratified random sampling to ensure representation across gender, academic achievement levels, and socio-economic backgrounds.

Data were collected using a structured questionnaire measuring students' preferred stream and key motivational factors. Additionally, semi-structured interviews with all 200 participants provided in-depth qualitative insights into their decision-making processes.

Quantitative data were analysed using descriptive statistics, while qualitative responses were subjected to thematic analysis, identifying recurring patterns such as career aspirations, parental influence, academic self-perception, and the availability of subject options.

IV. FINDINGS OF THE STUDY

The analysis revealed clear patterns in the demographic and motivational profiles of students across the three streams.

Science Stream: Science attracted the highest proportion of academically high-performing students (75%), typically from families with higher parental education levels (74%). Parental guidance had the strongest influence in this stream (65%), reflecting the societal emphasis on Science for high-status careers.

Arts Stream: Arts had the highest female representation (62%) and a notable share of students with average to lower academic performance (30%). Personal interest emerged as the strongest motivating factor, indicating growing student autonomy and creative aspirations.

Commerce Stream: Commerce displayed a balanced distribution across performance levels and attracted students with business-oriented mind-sets. Career practicality and moderate parental influence were key motivators.

Across all streams, personal interest was the most frequently reported influence, followed by career prospects (56.7%). Parental education proved to be a stronger determinant than family income, which had minimal influence overall (6.3%). Thematic analysis further highlighted peer influence, self-efficacy, and resource availability as significant contextual factors.

V. RECOMMENDATIONS

The findings point to several actionable recommendations:

1. **Strengthen career counselling systems** to provide accurate, unbiased information about all streams and emerging career opportunities.
2. **Address resource inequalities** by ensuring equitable access to qualified teachers, laboratories, libraries, and subject facilities across Arts, Science, and Commerce.
3. **Engage families and peer groups** in constructive discussions to reduce societal biases and support informed choices.
4. **Promote awareness of diverse careers**, moving beyond conventional perceptions that restrict students' aspirations.

VI. CONCLUSION

The study reveals significant trends in higher secondary stream selection, shaped by a combination of academic, familial, and personal factors. Female students are more represented overall, particularly in the Arts stream, while Science has the lowest female participation. Academic performance is highest among Science students, who also tend to come from families with higher educational backgrounds. Personal interest stands out as the dominant motivator across all streams, while parental guidance strongly affects Science stream choices. Career prospects influence students widely, though family income shows minimal relevance.

Overall, the findings indicate that personal interest, academic performance, and parental education are the most influential factors shaping students' stream choices. The study highlights the need for robust guidance mechanisms, equitable resource distribution, and supportive learning environments to help students make informed and fulfilling academic decisions.

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