



Academic Resilience and Learning Styles among Higher Secondary School Students

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ABSTRACT

Academic resilience has emerged as an important concept in educational psychology because it explains why some students succeed despite facing academic and social challenges. The present study explores the relationship between academic resilience and learning styles among higher secondary school students. The study was conducted among 300 students in Kozhikode district, Kerala using stratified random sampling. Data were collected using an Academic Resilience Scale and a Learning Styles Inventory based on the VARK model. Statistical techniques such as mean, standard deviation, t-test, ANOVA, and chi-square were applied to interpret the data. The results indicated that most students showed moderate to high levels of academic resilience. Visual and kinesthetic learning styles were found to be dominant among the participants. Significant differences were observed in resilience based on gender and academic stream. Furthermore, a significant relationship was identified between learning styles and academic resilience. The findings suggest that learner-centered teaching strategies that address diverse learning preferences can significantly improve resilience and academic achievement among higher secondary students.



Introduction

Education is widely recognized as one of the most important factors influencing the social, intellectual, and economic development of individuals and societies. In modern educational systems, students face increasing academic pressure due to competition, examination stress, parental expectations, and career uncertainties. While many students experience stress and difficulty in coping with these pressures, some students are able to overcome these challenges and continue to achieve academic success. This ability to adapt positively in the face of adversity is referred to as academic resilience.

Academic resilience is particularly important during the higher secondary stage of education because students are preparing for higher education and future careers. At this stage, students encounter demanding curricula, intense academic competition, and significant life decisions. Understanding the factors that contribute to resilience can help educators create learning environments that support students' success.

One factor that has gained attention in educational research is learning style. Learning styles refer to the preferred ways in which individuals acquire, process, and retain information. The VARK model categorizes learning styles into visual, auditory, reading/writing, and kinesthetic modes. When instructional strategies align with students' learning preferences, students are more likely to engage actively in the learning process.

Understanding the interaction between learning styles and academic resilience can provide valuable insights for educators. If teaching strategies support students' preferred learning modes, students may feel more confident, motivated, and capable of dealing with academic challenges. This study therefore investigates the relationship between academic resilience and learning styles among higher secondary school students.

Theoretical Framework

The theoretical framework of this study is grounded in resilience theory, social cognitive theory, and learning style theory. Resilience theory explains how individuals adapt positively despite experiencing adversity. According to Masten (2001), resilience is not a rare trait but rather a common developmental process that occurs when protective factors support individuals in overcoming risk.

Social cognitive theory proposed by Bandura (1986) emphasizes the role of self-efficacy in human behavior. Self-efficacy refers to individuals' belief in their ability to succeed in specific tasks. Students



with high self-efficacy are more likely to persist in challenging academic tasks and demonstrate resilience when they encounter difficulties.

Learning style theory explains the differences in the ways individuals prefer to learn. Fleming's VARK model identifies four major learning preferences: visual, auditory, reading/writing, and kinesthetic. Kolb's experiential learning theory also emphasizes that learning occurs through a cycle involving concrete experience, reflective observation, abstract conceptualization, and active experimentation.

The integration of these theories suggests that students who learn in ways that match their preferences may develop greater confidence and motivation. These psychological factors may enhance their ability to overcome academic challenges, thereby strengthening academic resilience.

Review of Literature

A considerable body of research has explored the concept of academic resilience and its importance in educational settings. Martin and Marsh (2006) defined academic resilience as the capacity of students to effectively deal with academic setbacks and maintain motivation and performance. Their research demonstrated that resilience is associated with positive academic outcomes and psychological well-being.

Masten (2001) described resilience as "ordinary magic," emphasizing that resilience is a natural developmental process that can be strengthened through supportive relationships and positive educational environments. Educational institutions therefore play a critical role in fostering resilience among students.

Learning styles have also been widely studied in educational psychology. Fleming (1987) introduced the VARK model, which classifies learners into four categories based on their preferred sensory modalities. Visual learners prefer diagrams and charts, auditory learners prefer lectures and discussions, reading/writing learners prefer text-based materials, and kinesthetic learners prefer hands-on activities.

Dunn and Dunn (1989) argued that teaching strategies aligned with students' learning styles can improve engagement and academic performance. Their research showed that students perform better when instruction matches their preferred learning methods.

Cassidy (2004) conducted an extensive review of learning style theories and concluded that understanding students' learning preferences can help educators design more effective instructional



strategies. Similarly, Gohel (2009) found that learning style-based instruction significantly improves students' academic achievement and motivation.

Although numerous studies have examined academic resilience and learning styles separately, limited research has explored the relationship between these two constructs. Particularly in the Indian educational context, empirical studies on academic resilience among higher secondary students remain relatively scarce. The present study attempts to address this gap by examining how learning styles influence academic resilience among higher secondary school students.

Methodology

The present study employed a descriptive survey method to examine the relationship between academic resilience and learning styles among higher secondary school students. A sample of 300 students was selected from various schools in Kozhikode district using stratified random sampling. The stratification ensured representation based on gender, academic stream, locale, and type of school management.

Two standardized instruments were used for data collection. The Academic Resilience Scale was used to measure students' ability to cope with academic challenges, while the Learning Styles Inventory based on the VARK model was used to identify students' preferred learning styles.

The collected data were analyzed using descriptive and inferential statistical techniques including mean, standard deviation, t-test, ANOVA, and chi-square analysis. These techniques helped determine differences in resilience levels and examine the relationship between learning styles and resilience.

Results and Discussion

The analysis of data revealed that most students demonstrated moderate to high levels of academic resilience. This suggests that many students possess the ability to adapt to academic challenges and maintain their performance.

The findings also indicated that visual and kinesthetic learning styles were the most common among the participants. Students with visual learning preferences benefited from diagrams, charts, and visual presentations, while kinesthetic learners preferred practical and experiential learning activities.



Gender-based comparisons showed that female students had slightly higher resilience scores compared to male students. This finding may be related to differences in study habits, motivation, and emotional regulation.

The analysis also revealed differences in resilience across academic streams. Science stream students demonstrated higher resilience levels, possibly due to their exposure to structured learning environments and problem-solving activities.

Chi-square analysis indicated a statistically significant relationship between learning styles and academic resilience. Students with visual and kinesthetic learning styles tended to demonstrate higher resilience levels. These learners may benefit from interactive and activity-based learning environments that encourage engagement and participation.

Educational Implications

The findings of the study have several important implications for educational practice. Teachers should recognize that students have diverse learning preferences and should adopt flexible teaching strategies that address these differences. Instructional methods should incorporate visual aids, group discussions, reading materials, and practical activities to accommodate multiple learning styles.

Schools should also implement programs aimed at strengthening students' resilience, including counseling services, mentorship programs, and stress-management workshops. Such initiatives can help students develop coping strategies and improve their academic confidence.

Teacher training programs should emphasize the importance of learner-centered instruction and resilience-building strategies. By creating supportive and inclusive learning environments, educators can help students develop the skills necessary to overcome academic challenges.

Conclusion

The present study highlights the significant relationship between learning styles and academic resilience among higher secondary school students. The findings indicate that students who learn through visual and experiential methods tend to demonstrate higher resilience levels.

Understanding students' learning preferences can help educators design instructional strategies that enhance engagement, motivation, and confidence. By aligning teaching methods with learning styles and



promoting supportive learning environments, educational institutions can strengthen students' ability to cope with academic challenges and achieve long-term academic success.

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