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# Influence Of Problem-Solving Skills in Accounting on Academic Anxiety Among Higher Secondary Commerce Students

DR. ABDUL GAFOOR K[1], ASWANTH C K[2]
[1]*Department of Education, University of Calicut*
[2]*SNES Institute of Management Studies and Research, Chethukadavu, Kozhikode*

***Abstract- - This research investigated the influence of problem-solving skills in accounting on academic anxiety among higher secondary commerce students in Kerala. Education in commerce, particularly accounting, demands robust problem-solving abilities such as logical reasoning, numerical accuracy, and the capacity to analyse financial data. However, the technical complexity of accounting often induces heightened academic anxiety, impairing cognitive functions and academic performance. Utilising a survey methodology, data were collected from a stratified random sample of 518 higher secondary students using anewly developed Test of Problem-Solving Skills in Accounting and a standardised Academic Anxiety Scale. The findings reveal a significant negative relationship between academic anxiety and problem-solving skills. Furthermore, gender and type of school management significantly impact both anxiety and problem-solving capabilities independently, though their interaction effects are not statistically significant. The study concludes that enhancing problem-solving competencies can act as a crucial therapeutic buffer against academic stress.***

***Index Terms- Academic Anxiety, Accounting Education, Cognitive Development, Commerce Students, Problem-Solving Skills.***

## I. INTRODUCTION

Education serves as the foundation for individual and societal advancement, playing a pivotal role in shaping the future of communities and nations alike (Brown, Roediger, & McDaniel, 2014). The often-quoted assertion that "the destiny of the nation is being shaped in its classrooms" reflects the immense responsibility placed on the education system (Education Commission, 1966). Among various academic disciplines, accounting occupies a pivotal position in the commerce stream, acting as a foundation for financial literacy and economic participation. Mastering accounting provides a real-world context that enhances students' analytical abilities and requires a high degree of problem-solving skills, including analytical processing, logical reasoning, and numerical precision (Wilkinson, Roush, & Taylor, 2020).

However, the technicality of the subject can be overwhelming. This pressure frequently manifests as academic anxiety – a persistent state of psychological distress, nervousness, or apprehension. Freud (1940) viewed anxiety as an internal conflict, often arising when there is a gap between what one is and what one strives to be. Academic anxiety is not limited to higher education; it begins early and can be triggered by multiple factors, including societal pressure, parental expectations, and institutional demands (Smith & Jones, 2018). Students experiencing anxiety are more likely to disengage from learning, procrastinate, and perform poorly in assessments (McDonald, 2001).

To counteract these adverse effects, it is essential to examine how cognitive capabilities, such as problem-solving skills, can act as a buffer against emotional distress. Teaching methods that focus on interactive learning, case studies, simulations, and step-by-step problem-solving models can significantly reduce anxiety by providing clarity, predictability, and engagement (Ashcraft & Moore, 2009). The primary objective of this study is to explore the extent of problem-solving skills in accounting and academic anxiety among higher secondary commerce students in Kerala.

## II. REVIEW OF RELATED LITERATURE

Problem-solving is defined as a mental process which is the concluding part of the larger problem process that includes problem finding and problem shaping, geared toward reaching a definite goal from a present condition (Mayer & Wittrock, 2006). According to Piaget (1972), higher secondary students are in the formal operational stage, capable of abstract thought, logical reasoning, and systematic planning, which makes them developmentally ready to tackle complex accounting problems.

Conversely, academic anxiety disrupts this cognitive functioning. Research highlights a reciprocal relationship: test-anxious individuals often report lower problem-solving capabilities (Blankstein, Flett, Boase, & Toner, 1992), and trait anxiety is identified as a predictor of reduced problem-solving performance (Dereli, Aksan, & Demir, 2012). In contrast, students with stronger problem-solving skills tend to perform better academically (Bala & Shaafiu, 2016; Li, Wang, & Liu, 2023).

## III. METHODOLOGY

The research employed a descriptive survey method to quantitatively analyse the influence of problem-solving skills on academic anxiety.

### A. Sample Selection

The study was carried out on a representative sample of 518 prospective higher secondary commerce students (Plus One batch) in the Kozhikode and Malappuram districts of Kerala. A stratified random sampling technique was utilised, categorising sub-samples based on student gender and type of school management (Government and Aided).

### B. Tools for Data Collection

1.Test of Problem-Solving Skills in Accounting: An investigator-developed standardised test consisting of 28 valid objective-type items designed to measure analytical, accounting processing, logical, and numerical skills. Reliability, which refers to the consistency or stability of test scores obtained from a particular assessment instrument (Anastasi, 1968), was established using the split-half method, yielding a high reliability coefficient of .833.

2.Academic Anxiety Scale: A standardised 11-item, 4-point scale developed by Cassady, Pierson, and Starling (2019) was adopted to measure academic distress. The scale demonstrated strong internal consistency with a Cronbach's alpha of 0.90.

### C. Statistical Techniques

The gathered data were analysed using measures of central tendency, standard deviation, independent t-tests, and Three-Way Analysis of Variance (ANOVA).

## IV. RESULTS

### A. Extent of Problem-Solving Skills and Academic Anxiety

Descriptive statistical analysis indicated that the problem-solving skills of higher secondary commerce students were at a moderate level, with a mean score of 15.45 and a standard deviation of 5.41. Similarly, the extent of academic anxiety was also found to be at a moderate level, yielding a mean score of 21.27 and a standard deviation of 5.69.

### B.Mean Difference Analysis by Classificatory Variables

1.Gender: There was a statistically significant difference in problem-solving skills between genders, with female students (M = 16.86) outperforming male students (M = 14.29). In terms of academic distress, male students reported higher mean anxiety scores (M = 22.14) than females (M = 20.21).

2.Type of Management: Government school students (M = 16.47) exhibited higher problem-solving skills compared to aided school students (M = 14.14). Conversely, aided school students reported significantly higher levels of academic anxiety (M = 22.84) than their government school counterparts (M = 20.05).

### C. Influence of Academic Anxiety on Problem-Solving Skills.

Testing the core hypothesis revealed a significant inverse relationship. Students exhibiting low

academic anxiety demonstrated significantly higher problem-solving skills in accounting (M = 17.38) compared to students dealing with high academic anxiety (M = 13.43). This significant negative correlation was consistently observed across all sub-samples.

D. Three-Way ANOVA.

To evaluate complex interactive effects, a Three-Way ANOVA was utilised. The main effects of gender ($F = 21.961$, $p < 0.001$), academic anxiety level ($F = 55.188$, $p < 0.001$), and type of management ($F = 14.483$, $p < 0.001$) were all independently and statistically significant. However, the two-way and three-way interaction effects among these variables were not statistically significant.

## V. EDUCATIONAL IMPLICATIONS

In an educational landscape that increasingly emphasises analytical thinking and emotional well-being, highlighting the critical role of cognitive abilities like problem-solving in reducing emotional barriers such as anxiety is essential (Karabenick & Knapp, 1991). Students with strong problem-solving skills tend to approach accounting tasks with greater confidence, resulting in reduced levels of academic anxiety (Ashcraft & Moore, 2009).

Teachers play a pivotal role in identifying academically anxious students (Putwain, 2007) and providing them with structured support through scaffolding techniques, individualised attention, and confidence-building strategies (Dweck, 2006). Curriculum planners must prioritise the inclusion of structured problem-solving tasks over rote procedural memorisation, fostering a growth mindset and an inclusive classroom environment.

## VI. CONCLUSION

A profound cognitive-emotional link dictates student success in commerce education. This research confirms that academic anxiety acts as a significant detriment to students' problem-solving abilities in accounting. Conversely, cultivating strong problem-solving competencies serves a dual purpose: it builds vital academic proficiency and acts as a therapeutic buffer, substantially alleviating academic anxiety. When students are equipped with systematic approaches to interpret and navigate complex financial data, their uncertainty drops, generating a positive cycle of confidence, motivation, and engagement.

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