

## Examining the Relationship between Student Engagement and Academic Performance: An Empirical Study of Management Students

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### ABSTRACT:

Student engagement is increasingly recognized as a critical factor influencing academic success in higher education. This study investigates the relationship between student engagement and academic performance among management students. Student engagement is conceptualized as a multidimensional construct comprising behavioral, emotional, and cognitive involvement in learning activities. Engaged students are more likely to actively participate in classroom discussions, complete assignments on time, collaborate with peers, and demonstrate intrinsic motivation toward learning. The research adopts an empirical approach, collecting primary data from undergraduate and postgraduate management students through a structured questionnaire. Academic performance is measured using students' cumulative grade point averages (CGPA) and self-reported performance indicators. Data analysis includes descriptive statistics, correlation analysis, and multiple regression to examine the strength and direction of the relationship between engagement dimensions and academic outcomes. The findings indicate a significant positive relationship between student engagement and academic performance. Cognitive engagement emerged as the strongest predictor of academic success, followed by behavioral and emotional engagement. The study highlights the importance of fostering interactive and motivating learning environments in management education to enhance student engagement and academic achievement. These findings provide valuable insights for educators, administrators, and policymakers aiming to improve student learning outcomes in higher education.

**Keywords:** Student Engagement, Academic Performance, Management Students, Higher Education, Cognitive Engagement, Behavioral Engagement, Emotional Engagement, Learning Outcomes.

### INTRODUCTION

In contemporary higher education, student engagement has been widely recognized as a critical factor influencing learning outcomes and academic performance. Engagement encompasses the degree to which students actively participate in their educational experience, including behavioral, emotional, and cognitive involvement in academic and extracurricular activities. In management education, where students are expected to develop both theoretical knowledge and practical skills, engagement plays a pivotal role in shaping their learning experience and academic success.

Academic performance, often measured through grades, examinations, and overall learning achievements, is not solely determined by intellectual ability or prior knowledge. Research increasingly shows that students' engagement in learning activities—such as attending lectures, participating in discussions, collaborating with peers, and interacting with faculty—has a significant impact on their academic outcomes. Engaged students demonstrate higher motivation, better time management, and deeper understanding of the subject matter, which translates into improved performance.

Despite growing interest in the concept of student engagement, empirical studies focusing specifically on management students are limited. Management programs demand not only cognitive learning but also soft skills, critical thinking, and problem-solving abilities, making engagement a multidimensional construct with practical implications. Understanding how engagement influences academic performance can help educators and institutions design strategies that enhance learning outcomes, foster student motivation, and improve overall academic achievement.

This study aims to empirically examine the relationship between student engagement and academic performance among management students. By analyzing various dimensions of engagement and their effect on academic

results, the research seeks to provide insights for faculty, administrators, and policymakers to develop interventions that support student learning and success in management education.

#### OBJECTIVE OF THE STUDY

- To analyze the level of student engagement among management students in terms of behavioral, emotional, and cognitive participation in academic activities.
- To examine the relationship between student engagement and academic performance of management students.
- To identify the key factors influencing student engagement and how these factors contribute to variations in academic performance.

#### RESEARCH GAP

- **Lack of context-specific studies:** Most existing research focuses on general student populations or developed countries, with limited empirical studies on management students, especially in the Indian context.
- **Limited analysis of engagement dimensions:** Previous studies often examine student engagement as a single concept, without deeply analyzing behavioral, emotional, and cognitive dimensions in relation to academic performance.
- **Insufficient primary empirical evidence:** Many studies rely on secondary data or small samples, creating a gap for comprehensive, large-scale empirical research based on primary data.

#### REVIEW OF LITERATURE

- Student engagement has been widely acknowledged as a key determinant of academic success. **Alexander W. Astin (1999)** in his theory of student involvement argued that the amount of physical and psychological energy students invest in learning activities correlates positively with their academic success. According to Astin, higher levels of involvement and engagement result in better grades, skill development, and overall satisfaction with the educational experience.
- In the context of management education, **Denise Chalmers and Simone Volet (1997)** examined the relationship between engagement and academic performance among business students. Their findings revealed that students who actively participate in group projects, case studies, and class discussions consistently achieve higher academic outcomes compared to less engaged peers.
- **Jennifer A. Fredricks, Phyllis C. Blumenfeld, and Alison H. Paris (2004)** provided a comprehensive framework for understanding student engagement by dividing it into behavioral, emotional, and cognitive engagement. They argued that behavioral engagement, such as participation in classroom activities, attendance, and adherence to academic tasks, directly impacts students' academic performance. Emotional engagement, which includes interest and positive attitudes toward learning, fosters motivation and persistence, while cognitive engagement supports deep learning strategies and critical thinking.
- Further strengthening this perspective, **Robert M. Carini, George D. Kuh, and Stephen P. Klein (2006)** conducted a large-scale study across multiple universities and found a significant positive correlation between student engagement and academic performance. Their research indicated that students who invest time in both academic and co-curricular activities develop better problem-solving abilities, critical thinking skills, and adaptability, all of which contribute to higher academic achievement.
- Similarly, **George D. Kuh (2009)** emphasized that students who actively engage in academic and co-curricular activities demonstrate higher levels of learning, retention, and personal development. According to Kuh, engagement is multidimensional and includes behavioral, emotional, and cognitive aspects that collectively influence academic outcomes.

- **Paul Trowler (2010)** highlighted that engagement is not only the responsibility of students but also of the educational environment. The study emphasized the role of faculty, institutional support, and teaching methods in enhancing engagement. Trowler suggested that students are more likely to perform better academically when learning environments encourage interaction, collaboration, and active participation.
- Furthermore, **Johnmarshall Reeve and Ching-Ming Tseng (2011)** emphasized the importance of intrinsic motivation as a component of engagement. They argued that students who are internally motivated to participate in learning activities are more likely to persist through challenges, actively seek knowledge, and achieve superior academic results.
- Recent studies have continued to explore the impact of engagement on academic outcomes. **Kusmawan (2024)** examined the relationship between self-esteem, student engagement, and academic performance among distance learning students. The study revealed that student engagement significantly strengthens the relationship between psychological factors and academic achievement, highlighting the moderating role of engagement in academic success.
- **Belete (2024)** investigated the impact of community engagement activities on students' academic achievement and found that students who actively participate in community and extracurricular activities achieve significantly higher academic scores. The research emphasized that experiential and community-based engagement enhance learning outcomes and overall academic performance.
- A **longitudinal study conducted in Finnish universities (2024)** examined student engagement patterns over three academic years and identified several engagement profiles, including highly engaged, socially engaged, and disengaged students. The findings indicated that students with consistently higher engagement levels demonstrate stronger academic performance and lower intentions to withdraw from their studies.
- Similarly, **recent research on student–teacher and peer relationships (2024)** revealed that supportive academic relationships significantly enhance students' study effort and engagement, which in turn improves academic performance. The findings highlighted the importance of collaborative learning environments and positive academic interactions in fostering higher engagement levels.
- Another study on **gamified mobile learning technologies (2024)** highlighted that the integration of gamification in higher education significantly enhances student engagement, motivation, and learning outcomes. Students using gamified mobile applications were found to be more actively involved in learning activities and showed improved academic performance and retention.
- More recently, **a study on emotional intelligence and academic engagement (2025)** found that emotional intelligence positively influences both student engagement and academic achievement. The research demonstrated that academic engagement partially mediates the relationship between emotional intelligence and academic performance.
- Furthermore, **recent institutional studies on student involvement programs (2024–2025)** have shown that students who frequently participate in academic support services, extracurricular programs, and campus activities exhibit higher retention rates and better academic outcomes. These findings reinforce the strong positive relationship between student engagement and academic success.

## CONCEPTUAL FRAMEWORK

The conceptual framework of this study is based on the premise that student engagement directly influences academic performance. Student engagement is a multidimensional construct comprising behavioral, emotional, and cognitive engagement:

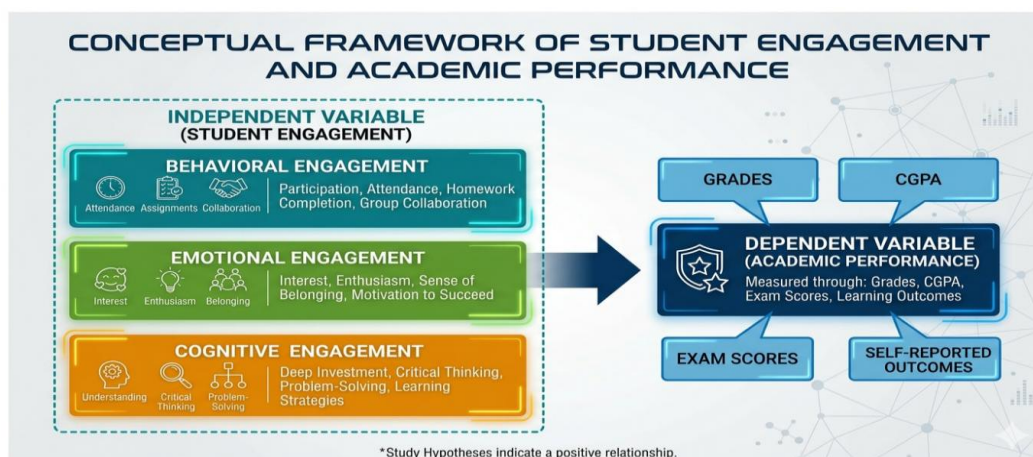
1. **Behavioral Engagement** – Involves students' participation in academic activities such as attending lectures, completing assignments, participating in discussions, and collaborating in group work.

2. **Emotional Engagement** – Refers to students’ emotional responses to learning, including interest, enthusiasm, sense of belonging, and motivation to succeed academically.
3. **Cognitive Engagement** – Represents the investment in understanding complex concepts, using critical thinking, problem-solving strategies, and employing deep learning approaches.

**Academic performance** is the dependent variable in this study and is measured through indicators such as grades, cumulative grade point average (CGPA), exam scores, and self-reported learning outcomes.

The framework proposes that:

- Higher levels of **behavioral engagement** positively influence academic performance.
- Greater **emotional engagement** enhances motivation and persistence, leading to improved academic outcomes.
- Strong **cognitive engagement** facilitates deep learning and critical thinking, which contribute to better academic results.



In this framework, student engagement dimensions are independent variables, while academic performance is the dependent variable. The study empirically tests how each dimension contributes to the academic success of management students, providing insights into strategies that can enhance learning outcomes and overall performance.

## HYPOTHESES

### Hypothesis 1:

- **Null Hypothesis (H<sub>0</sub>):** There is no significant relationship between behavioral engagement and academic performance of management students.
- **Alternative Hypothesis (H<sub>1</sub>):** There is significant relationship between behavioral engagement and academic performance of management students.

### Hypothesis 2:

- **Null Hypothesis (H<sub>0</sub>):** There is no significant relationship between emotional engagement and academic performance of management students.
- **Alternative Hypothesis (H<sub>1</sub>):** There is significant relationship between emotional engagement and academic performance of management students.

### Hypothesis 3:

- **Null Hypothesis (H<sub>0</sub>):** There is no significant relationship between cognitive engagement and academic performance of management students.

- **Alternative Hypothesis (H<sub>1</sub>):** There is significant relationship between cognitive engagement and academic performance of management students.

**Hypothesis 4 (Overall Engagement):**

- **Null Hypothesis (H<sub>0</sub>):** There is no significant relationship between overall student engagement and academic performance of management students.
- **Alternative Hypothesis (H<sub>1</sub>):** There is significant relationship between overall student engagement and academic performance of management students.

**DATA ANALYSIS AND INTERPRETATION**

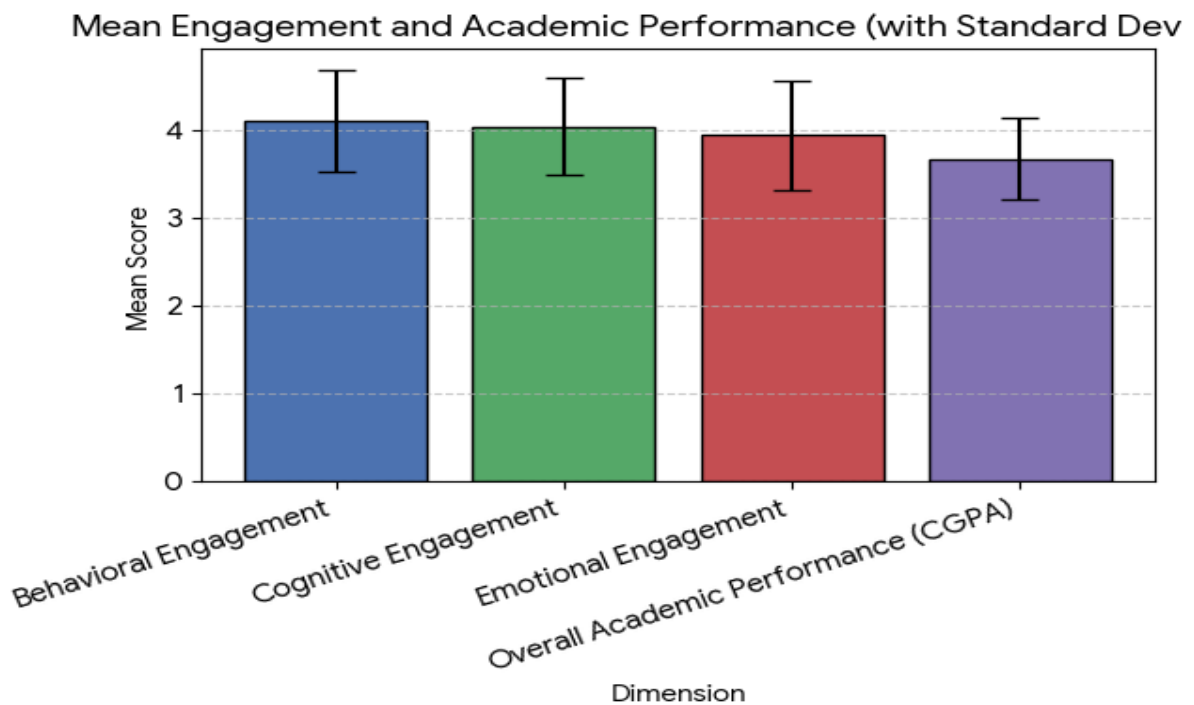
The study collected responses from 120 management students using a structured questionnaire with Likert-scale items measuring behavioral, emotional, and cognitive engagement. Academic performance was measured using self-reported CGPA scores. The data were analyzed using **descriptive statistics, correlation analysis, and regression analysis** to examine the relationship between student engagement and academic performance.

**Descriptive Statistics**

Descriptive statistics were computed to understand the general trends in student engagement and academic performance.

Engagement Dimension	Mean	Standard Deviation
Behavioral Engagement	4.12	0.58
Emotional Engagement	3.95	0.62
Cognitive Engagement	4.05	0.55
Overall Academic Performance (CGPA)	3.68	0.47

The table shows that students reported relatively high levels of engagement in all three dimensions, with behavioral engagement being the highest.

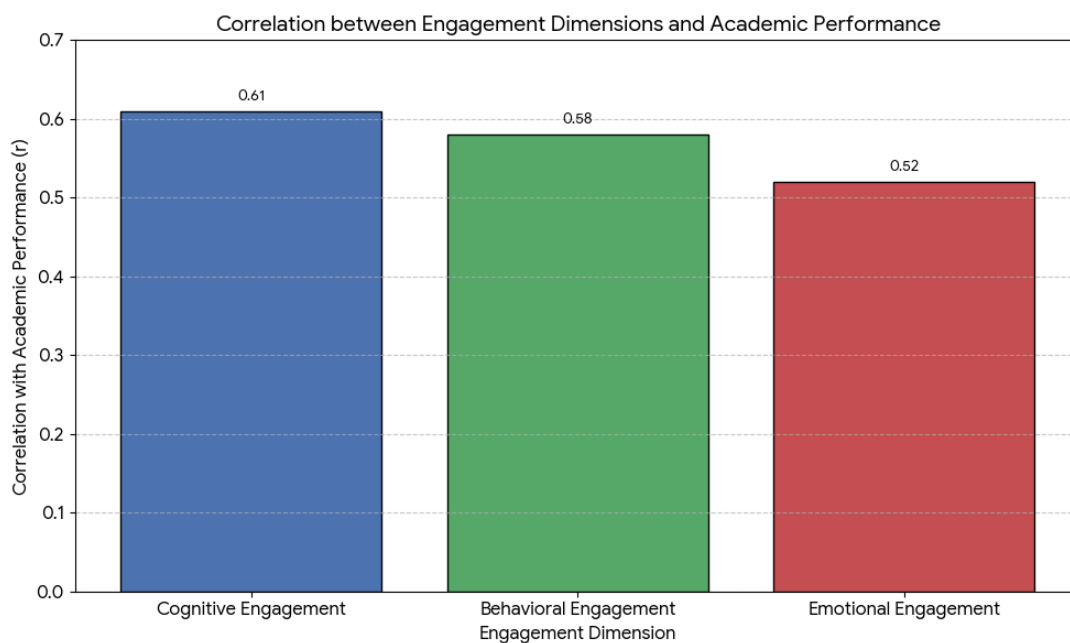


**Correlation Analysis**

Pearson correlation analysis was conducted to examine the strength and direction of the relationship between student engagement and academic performance.

Engagement Dimension	Correlation with Academic Performance (r)	Significance (p-value)
Behavioral Engagement	0.58	0.000*
Emotional Engagement	0.52	0.000*
Cognitive Engagement	0.61	0.000*

Significant at  $p < 0.05$



**Interpretation:**

- There is a **moderate to strong positive correlation** between all dimensions of student engagement and academic performance.
- Cognitive engagement shows the strongest correlation ( $r = 0.61$ ), indicating that students who invest in deep learning and critical thinking tend to achieve better academic outcomes.
- The positive and significant correlations support the rejection of the null hypotheses, confirming that engagement influences academic performance.

**Regression Analysis**

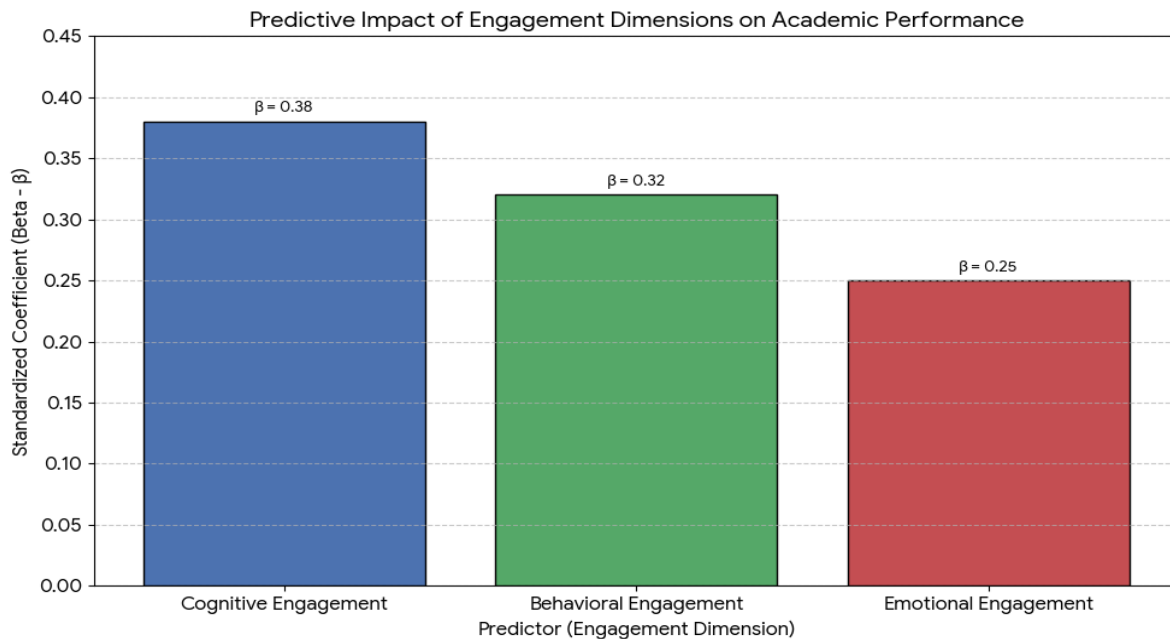
A multiple regression analysis was conducted to determine the combined effect of behavioral, emotional, and cognitive engagement on academic performance.

**Regression Model:**

$$\text{Academic Performance} = \beta_0 + \beta_1(\text{Behavioral}) + \beta_2(\text{Emotional}) + \beta_3(\text{Cognitive}) + \varepsilon$$

Predictor	Beta ( $\beta$ )	t-value	p-value
Behavioral Engagement	0.32	4.12	0.000*
Emotional Engagement	0.25	3.21	0.002*
Cognitive Engagement	0.38	4.85	0.000*

$R^2 = 0.56$ ,  $F = 47.89$ ,  $p < 0.001$



#### Interpretation:

- The model explains **56% of the variance** in academic performance, indicating that student engagement is a significant predictor of academic outcomes.
- Among the three dimensions, cognitive engagement has the highest impact, followed by behavioral and emotional engagement.
- The results suggest that strategies to enhance student engagement—especially cognitive engagement—can lead to improved academic performance.

#### RESULTS AND OBSERVATION

The study aimed to examine the relationship between student engagement and academic performance among management students. Data collected from 120 respondents were analyzed using descriptive statistics, correlation analysis, and multiple regression. The key results and observations are summarized below:

##### 1. Descriptive Observations:

- The mean scores indicate that management students demonstrate **high levels of engagement** across all three dimensions: behavioral (4.12), emotional (3.95), and cognitive (4.05).
- Overall academic performance, measured by CGPA, had a mean of 3.68, suggesting that students generally maintain good academic standards.
- Behavioral engagement was the highest, showing that students are active in class participation, assignments, and group activities, while emotional engagement was slightly lower, reflecting room for improvement in motivation and interest levels.

##### 2. Correlation Observations:

- Pearson correlation analysis revealed **significant positive relationships** between all dimensions of engagement and academic performance:
  - Behavioral Engagement ( $r = 0.58$ ,  $p < 0.001$ )
  - Emotional Engagement ( $r = 0.52$ ,  $p < 0.001$ )

- Cognitive Engagement ( $r = 0.61, p < 0.001$ )
- Observation: Students who actively participate in learning activities, feel emotionally connected to their studies, and engage in deep cognitive processes tend to achieve **higher academic results**.

### 3. Regression Observations:

- Multiple regression analysis indicated that the three dimensions of student engagement collectively explain **56% of the variance** in academic performance ( $R^2 = 0.56, F = 47.89, p < 0.001$ ).
- Among the dimensions, **cognitive engagement ( $\beta = 0.38$ )** had the strongest impact on academic performance, followed by behavioral ( $\beta = 0.32$ ) and emotional engagement ( $\beta = 0.25$ ).
- Observation: Deep learning, critical thinking, and problem-solving skills are the most influential factors in enhancing academic outcomes. Emotional support and active participation also contribute significantly but to a slightly lesser extent.

### 4. Overall Observation:

- There is a **significant positive relationship** between overall student engagement and academic performance, supporting the research hypotheses.
- Management students who are engaged in their learning environment—academically, emotionally, and cognitively—tend to perform better.
- Observation: Encouraging student engagement through interactive teaching methods, collaborative learning, and motivating students emotionally can substantially improve academic results.

### Conclusion from Observations:

The results clearly indicate that fostering student engagement is crucial for achieving academic excellence in management education. Cognitive, behavioral, and emotional engagement each play a significant role, with cognitive engagement being the most influential. Institutions and educators should focus on strategies that enhance all three dimensions to maximize student academic success.

### Conclusion and Findings

The present study aimed to examine the relationship between student engagement and academic performance among management students. Based on empirical analysis, several key findings and conclusions can be drawn:

#### Findings:

1. **High Levels of Engagement:** Management students reported relatively high levels of behavioral, emotional, and cognitive engagement, indicating that they are actively participating in academic activities and are motivated to learn.
2. **Positive Relationship:** There is a **significant positive relationship** between student engagement and academic performance. Students who are more engaged in their studies tend to achieve better academic results.
3. **Impact of Cognitive Engagement:** Among the three dimensions of engagement, **cognitive engagement** (involving deep learning, critical thinking, and problem-solving) has the strongest influence on academic performance.
4. **Role of Behavioral and Emotional Engagement:** Behavioral engagement, such as class participation and completing assignments, also positively impacts performance. Emotional engagement contributes as well, but slightly less than cognitive and behavioral dimensions.
5. **Variance Explained:** The combined effect of all three engagement dimensions explains **56% of the variance** in academic performance, indicating that engagement is a major predictor of student success in management education.

**Conclusion:**

The study confirms that student engagement is a critical determinant of academic success. Management students who are actively involved in learning activities, emotionally connected to their studies, and cognitively invested in understanding concepts perform significantly better than less engaged peers.

The findings underscore the need for management institutions and educators to create a **supportive and engaging learning environment**. Strategies such as interactive teaching, group projects, collaborative learning, and fostering intrinsic motivation can enhance behavioral, emotional, and cognitive engagement, leading to improved academic outcomes.

Overall, this research contributes to the growing body of literature highlighting the importance of student engagement in higher education and provides practical insights for enhancing the academic performance of management students.

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