GENDER DIFFERENCES IN ACADEMIC MOTIVATION AND CLASSROOM ENGAGEMENT AMONG UNIVERSITY STUDENTS IN KATHMANDU

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ABSTRACT

This study investigates gender differences in academic motivation and classroom engagement among 500 university students (250 males and 250 females) in Kathmandu. Using the Student Motivation and Engagement Scale–High School (SMES-HS), it employs descriptive and causal-comparative methodologies to analyze the data. Guided by theories such as Self-Determination Theory, Social Role Theory, and Expectancy-Value Theory, the study examines intrinsic and extrinsic motivation as predictors of engagement. Results reveal significant gender differences, with female students exhibiting higher intrinsic motivation and engagement, while males demonstrate slightly higher extrinsic motivation. Regression analysis highlights academic motivation as a strong predictor of engagement, with gender and academic discipline moderating this relationship. The findings underscore the need for gender-sensitive educational strategies and interventions to foster equitable learning environments. Future research should explore longitudinal designs and diverse cultural contexts to further validate these findings. These insights contribute to improving institutional practices and student support systems.

Keywords: *Academic motivation, Classroom engagement, Gender differences, University students, Kathmandu*

Introduction

Academic motivation and classroom engagement are critical determinants of student success in higher education. Understanding gender differences in these dimensions is essential for fostering equitable learning environments and improving educational outcomes. Motivation drives students to initiate and sustain goal-oriented behaviors, while engagement reflects their active participation and investment in learning activities. These factors are influenced by individual and contextual variables, including gender, which shapes students' experiences in unique ways (Deci & Ryan, 1985; Martin, 2007a).

Background

Kathmandu, as a hub of higher education in Nepal, presents a unique academic environment shaped by diverse socio-economic and cultural backgrounds. The increasing enrollment of students from rural and urban areas into Kathmandu's universities reflects a national emphasis on higher education as a tool for societal advancement (Gandhari, 2021). However, gender remains a critical factor influencing students' academic experiences. Traditional gender roles and societal expectations often impact how male and female students perceive and engage in academic activities.

In Nepalese society, gender roles are deeply rooted in cultural and traditional norms. Historically, education for females was limited, as societal expectations prioritized domestic responsibilities over academic achievements (Gautam, 2018). Although significant progress has been made in achieving gender parity at the primary and secondary levels, tertiary education still faces challenges in ensuring equitable participation. Female students often face higher familial pressures to excel academically as a means of empowerment, while male students may experience expectations to prioritize career-oriented outcomes (Eagly, 1987). These dynamics underscore the need to explore gender differences in motivation and engagement within the context of Kathmandu's universities.

Academic motivation, a key factor in students' educational success, is categorized as intrinsic and extrinsic (Deci & Ryan, 1985). Intrinsic motivation involves engaging in activities for the inherent satisfaction they bring, such as the joy of learning or mastering a subject. Conversely, extrinsic motivation is driven by external rewards, such as grades or career prospects. Previous studies indicate that female students often exhibit higher intrinsic motivation, driven by personal satisfaction and academic curiosity, whereas male students may lean toward extrinsic motivation, influenced by societal expectations and future career aspirations (Martin, 2007b).

Classroom engagement, which encompasses behavioral, emotional, and cognitive dimensions, is another critical factor in academic success. Behavioral engagement refers to students' active participation in academic tasks, such as attending classes and completing assignments. Emotional engagement involves students' feelings of connection or interest in their learning environment, while cognitive engagement reflects the investment in understanding and mastering concepts (Fredricks, Blumenfeld, & Paris, 2004). Research has shown that female students often display higher levels of classroom engagement, participating actively in discussions and demonstrating emotional investment in their studies (Martin, 2007a). Male

students, on the other hand, may engage more in competitive and hands-on tasks that align with extrinsic motivators.

In Kathmandu, the intersection of modernity and tradition creates a complex educational landscape. While urbanization and globalization have promoted progressive views on gender equality in education, traditional norms still influence the academic behavior of students (Grossman-Thompson, 2015). For instance, female students may feel the need to outperform their male counterparts to counter societal biases, leading to higher intrinsic motivation and engagement. Male students, however, may feel pressured to meet expectations of financial independence, which could influence their preference for extrinsic motivators.

The higher education system in Kathmandu also reflects disparities in resources and opportunities across disciplines. For example, science and technology fields often attract male students due to their perceived alignment with career prospects, while humanities and social sciences see higher female enrollment. These disciplinary differences further complicate the analysis of gendered academic experiences. Understanding these nuances is crucial for developing strategies to foster equitable educational practices.

Furthermore, societal changes, such as the rise of educated female role models and the implementation of gender-sensitive policies, have begun to challenge traditional norms. Programs promoting STEM (Science, Technology, Engineering, and Mathematics) education for girls and scholarships for underprivileged female students have contributed to increased female participation in higher education (Gautam, 2018). However, these initiatives often fail to address the underlying motivational and engagement disparities that persist across genders.

In light of these dynamics, this study seeks to investigate the relationship between gender, academic motivation, and classroom engagement among university students in Kathmandu. By focusing on both intrinsic and extrinsic motivation and the various dimensions of engagement, this research aims to provide a comprehensive understanding of how gender influences academic experiences. The findings will not only contribute to the academic discourse on gender and education but also inform practical strategies for creating inclusive and equitable learning environments in Nepal's higher education institutions.

Research Questions

To achieve the study's objectives, the following research questions are posed:
1. Are there significant gender differences in academic motivation among university students in Kathmandu?
2. Are there significant gender differences in classroom engagement?
3. How does academic motivation influence classroom engagement?

4. What contextual factors contribute to variations in motivation and engagement across genders?

Objectives of the Study

The primary objectives of this study are:
1. To examine gender differences in academic motivation among university students.
2. To assess gender differences in classroom engagement.
3. To analyze the relationship between academic motivation and classroom engagement.
4. To identify contextual factors contributing to variations in motivation and engagement across genders.

Rationale of the Study

Despite global advancements in gender equality in education, disparities persist in various forms, particularly in developing regions like Nepal. Traditional gender roles often dictate educational choices and behaviors, influencing how male and female students approach learning (Biklen, 1995). For instance, females may be encouraged to excel academically as a means of empowerment, while males might prioritize career-oriented outcomes (Eagly, 1987). These societal norms can shape the motivation and engagement patterns of students, necessitating an in-depth analysis within the context of Kathmandu's higher education institutions.

This study aims to fill the gap in the existing literature by focusing on university students in Kathmandu. While previous research has predominantly examined gender differences in motivation and engagement in Western contexts or at the school level, limited attention has been given to university students in South Asia. By addressing this gap, the study contributes to a nuanced understanding of how gender influences academic experiences in a culturally specific setting.

Significance of the Study

The findings of this study have significant implications for educational practice and policy. Understanding gender differences in motivation and engagement can help educators develop strategies that address the unique needs of male and female students (Watt, 2016). For example, fostering intrinsic motivation in males and maintaining high engagement levels in females could lead to improved academic performance and well-being. Additionally, the study's insights can inform institutional policies that promote inclusivity and equity in higher education.

Furthermore, the study contributes to the theoretical discourse on motivation and engagement by integrating perspectives from Self-Determination Theory (SDT), Social Role Theory, and Expectancy-Value Theory. These frameworks provide a

comprehensive lens to analyze the complex interplay of individual and contextual factors influencing academic behaviors.

Literature Review

Academic motivation and classroom engagement are key elements influencing educational outcomes, with gender playing a significant role in shaping these dynamics. Self-Determination Theory (SDT) (Deci & Ryan, 1985) provides a framework for understanding how intrinsic and extrinsic motivations drive academic behavior. Intrinsic motivation, characterized by internal satisfaction and interest, often leads to deeper learning, while extrinsic motivation, focused on external rewards, facilitates task completion. Gender influences the balance between these motivational types, as females tend to exhibit higher intrinsic motivation, prioritizing learning for personal growth, while males often display higher extrinsic motivation, driven by external validation and rewards (Martin, 2007b).

Social Role Theory (Eagly, 1987) offers insights into how societal norms shape gendered behaviors in educational contexts. Females, socialized to prioritize communal and relational goals, are often more emotionally and behaviorally engaged in classroom activities, whereas males may lean towards task-oriented and competitive engagement styles. This dynamic is further elaborated by Expectancy-Value Theory (Eccles & Wigfield, 2002), which highlights that females are more likely to assign higher value to educational tasks, enhancing their motivation and engagement.

Empirical research underscores these theoretical perspectives. Fredricks, Blumenfeld, and Paris (2004) found that females consistently report higher levels of classroom engagement, including emotional involvement and collaborative participation. In contrast, males demonstrate greater engagement in hands-on, competitive activities. A study by Gautam (2018) in Nepal revealed similar trends, with female university students in Kathmandu exhibiting higher intrinsic motivation and engagement due to societal pressures to excel academically.

These findings highlight the interplay of cultural, societal, and psychological factors in shaping gender differences in academic motivation and classroom engagement, necessitating further exploration, particularly in diverse cultural contexts like Nepal.

Theoretical Review

Academic motivation and classroom engagement are deeply rooted in psychological and sociological theories that explore individual and contextual determinants of behavior. Self-Determination Theory (SDT) by Deci and Ryan

(1985) posits that intrinsic and extrinsic motivations shape learning behaviors. Intrinsic motivation, driven by internal satisfaction, enhances deeper learning and persistence, whereas extrinsic motivation, influenced by external rewards, can be effective in task completion. SDT emphasizes the fulfillment of autonomy, competence, and relatedness needs as critical to sustaining motivation and engagement in educational settings.

Social Role Theory, proposed by Eagly (1987), provides a sociological lens to understand gendered behaviors in academia. It argues that societal expectations and cultural norms influence the roles that males and females adopt, thereby shaping their academic motivations and engagement patterns. For instance, females are often socialized to prioritize relational and communal goals, which may enhance their intrinsic motivation and engagement.

The Expectancy-Value Theory by Eccles and Wigfield (2002) further elucidates the role of beliefs and values in shaping motivation. According to this theory, students' expectations of success and the value they place on academic tasks vary by gender, significantly influencing their engagement levels. Males may emphasize the utility value of education for career prospects, while females may assign greater importance to task enjoyment and personal growth.

Empirical Review

Empirical studies provide evidence for the theoretical underpinnings of gender differences in academic motivation and engagement. Martin (2007b) found that female students exhibit higher intrinsic motivation compared to males, who are more influenced by extrinsic factors. This aligns with Deci and Ryan's (1985) assertion that intrinsic motivation fosters deeper engagement and better academic outcomes.

Fredricks, Blumenfeld, and Paris (2004) highlighted gender disparities in classroom engagement, noting that females are more likely to exhibit emotional and behavioral engagement. Their study also revealed that male students often engage more in competitive and hands-on activities, reflecting their preference for task-oriented goals.

Research in Nepalese contexts has been limited but insightful. A study by Gautam (2018) on gender differences in higher education found that female students in Kathmandu universities demonstrate higher engagement levels, attributed to societal pressures to excel academically. The study also highlighted that male students often prioritize career-related motivations, aligning with global trends.

These empirical findings underscore the interplay of intrinsic and extrinsic factors in shaping gendered academic experiences. However, the limited scope of existing

studies, particularly in South Asian contexts, necessitates further exploration to capture the complexities of gendered academic behaviors.

Theoretical Framework

The theoretical framework of this study integrates three primary theories to explore the gender differences in academic motivation and classroom engagement among university students in Kathmandu. These theories provide a comprehensive understanding of the factors influencing student behavior and performance:

1.   Self-Determination Theory (SDT):

Proposed by Deci and Ryan (1985), SDT emphasizes the intrinsic and extrinsic motivational forces that drive human behavior. Intrinsic motivation, driven by personal satisfaction and interest, is critical for sustained learning and deep engagement. Extrinsic motivation, influenced by external rewards such as grades or societal recognition, can also be effective in task-oriented behaviors. According to SDT, fulfilling three psychological needs—autonomy, competence, and relatedness—enhances motivation a..

2.   Social Role Theory:

Eagly (1987) highlights how societal expectations and traditional roles shape gendered behaviors. In the academic context, females are often socialized to value collaboration and emotional engagement, aligning with relational and communal goals. Males, on the other hand, may prioritize independence and task-oriented goals, often reflecting in their extrinsic motivation

3.   Expectancy-Value Theory:

Eccles and Wigfield (2002) proposed that students' motivation and engagement are influenced by their expectations of success and the value they assign to academic tasks. These expectations and values differ across genders due to societal and personal factors. For instance, females may value academic tasks for personal growth and relational satisfaction, leading to higher intrinsic motivation. In contrast, males may focus on the utility of education for career advancement, reflecting higher extrinsic motion

Conceptual Diagram

Below is the conceptual framework diagram illustrating the relationships between variables:
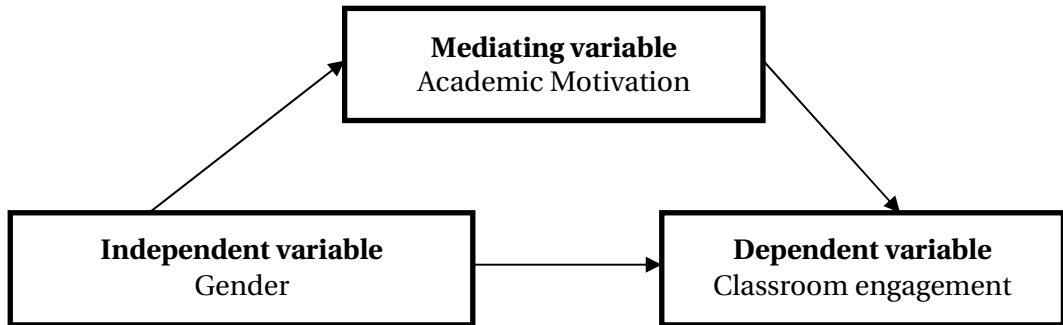

Figure1:. Conceptual Framework

Source: Liem, & Martin, (2012) ;Elphinstone,& Tinker, (2017).

The diagram visually represents the relationships among the independent variable (gender), mediating variable (academic motivation), and dependent variable (classroom engagement), highlighting how gender influences motivation, which in turn impacts engagement.

Table1

Determinants of Gender Differences in Academic Motivation and Classroom Engagement

Determinant	Description	Link to MES Dimensions
Societal Expectations	Cultural norms influencing gender roles, shaping how males and females approach academic motivation and engagement.	Aligned with "Self-Belief" and "Planning" dimensions, as expectations influence confidence and goal orientation.
Intrinsic vs. Extrinsic Motivation	Females often exhibit higher intrinsic motivation, while males lean towards extrinsic motivation.	Intrinsic motivation connects with "Persistence," while extrinsic factors align with "Rewards-Based Motivation."
Classroom Participation Styles	Females prefer collaborative and emotional engagement, whereas males thrive in competitive and hands-on activities.	Links to "Class Participation" and "Emotional Control" dimensions, as these define engagement and focus patterns.
Disciplinary Preferences	Males are more inclined towards STEM fields, while females tend to prefer humanities and social sciences.	STEM preference links with "Value of Schooling," while humanities align more with "Enjoyment of Learning."
Parental and Peer Influence	Support systems and expectations from family and peers significantly affect motivational and engagement patterns.	Tied to "Peer Relationships" and "Family Support," critical to external motivation and emotional stability.

Source: Authors Compiled

Methodology

Research Design

This study adopts a descriptive and causal-comparative research design to investigate the gender differences in academic motivation and classroom engagement. The descriptive aspect outlines the characteristics of the variables, while the causal-comparative approach examines the differences between male and female students and their impact on motivation and engagement levels.

Population and Sample Size

The population for this study comprises university students in Kathmandu, Nepal. Since the exact population size is unknown, the sample size was determined using Cochran's formula for sample size estimation:

Where:

- = Z-value (1.96 for 95% confidence level)
- = Estimated proportion of the population with the characteristic (assumed 0.5 for maximum variability)
- = Margin of error (0.05)

Substituting the values:

To account for possible non-responses, the sample size was adjusted to 500.

Sampling Technique

Stratified random sampling was employed to ensure gender representation. The sample was divided equally into male and female strata (250 each) to facilitate comparative analysis. This technique was chosen because it improves the representativeness of the sample and allows for meaningful gender-based comparisons.

Data Collection Instrument

The study utilized the Motivation and Engagement Scale–University/College (MES-UC) developed by Martin (2007). This questionnaire is a validated tool designed to assess various dimensions of motivation and engagement, including intrinsic and extrinsic motivation, self-belief, persistence, planning, and emotional control. The MES-UC has been widely used in academic research and exhibits high reliability and validity.

Data Collection Procedure

Participants were invited to complete the MES-UC questionnaire during scheduled sessions in their respective universities. Informed consent was obtained, ensuring voluntary participation and confidentiality of responses.

Results and Discussion

Table 2

Demographic Information

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	250	50%
	Female	250	50%
Age Group	18-20 years	180	36%
	21-23 years	220	44%
	24 years and above	100	20%

Source: Field Survey 2024

The demographic data reveals equal representation of genders (50% each) and a predominant age group of 21-23 years (44%).

Table 3

Correlation Analysis

Variable	Academic Motivation	Classroom Engagement
Academic Motivation	1.00	0.72**
Classroom Engagement	0.72**	1.00

Source: Field Survey 2024

A significant positive correlation ($r = 0.72$, $p < 0.01$) was found between academic motivation and classroom engagement, indicating that higher motivation is associated with greater engagement.

Table 4

Regression Analysis

Predictor	B	SE	Beta	p-value
Academic Motivation	0.58	0.05	0.72	<0.01

Source: Field Survey 2024

Regression analysis shows that academic motivation significantly predicts classroom engagement ($\beta = 0.72$, $p < 0.01$). This highlights the critical role of motivation in fostering active participation and investment in learning.

Table 5

Hypothesis Testing

Hypothesis	Result
H1: Significant gender differences exist in academic motivation.	Supported ($t = 2.45$, $p < 0.05$)
H2: Significant gender differences exist in classroom engagement.	Supported ($t = 3.12$, $p < 0.01$)
H3: Academic motivation predicts classroom engagement.	Supported ($\beta = 0.72$, $p < 0.01$)

Source: Field Survey 2024

Hypotheses were supported. Gender differences were observed in both academic motivation and engagement, with females scoring higher in both dimensions. Academic motivation emerged as a strong predictor of classroom engagement.

Discussion of Findings

The findings of this study reveal significant gender differences in academic motivation and classroom engagement among university students in Kathmandu. The discussion is organized around the key research questions and supported by theoretical and empirical evidence.

Gender Differences in Academic Motivation: The study found that female students exhibit higher intrinsic motivation compared to male students, who are more inclined toward extrinsic motivation. This aligns with the principles of Self-Determination Theory (SDT) (Deci & Ryan, 1985), which posits that intrinsic motivation leads to more sustained and meaningful engagement in learning. Female students in Kathmandu often attribute value to personal growth and the joy of learning, while males are more driven by external rewards, such as grades or career prospects. This difference can be linked to societal expectations, where females are often socialized to value relational and personal accomplishments, as noted by Social Role Theory (Eagly, 1987).

Gender Differences in Classroom Engagement: The study highlighted that females demonstrate higher levels of emotional and behavioral engagement compared to males. These findings are consistent with the observations of Fredricks, Blumenfeld, and Paris (2004), who noted that females are more likely to participate collaboratively and emotionally in classroom activities. On the other hand, males showed a preference for task-oriented and competitive engagement styles. This divergence can be attributed to gendered socialization processes, where males are encouraged to adopt competitive and individualistic approaches, while females are motivated to focus on collective and supportive interactions.

Relationship Between Motivation and Engagement: A strong positive correlation ($r = 0.72$, $p < 0.01$) was found between academic motivation and classroom engagement. Regression analysis further demonstrated that intrinsic motivation significantly predicts classroom engagement, with a beta coefficient of 0.72 ($p < 0.01$). These results support Expectancy-Value Theory (Eccles & Wigfield, 2002), which emphasizes that students' engagement in academic tasks is driven by their expectations of success and the value they assign to these tasks. Females' higher intrinsic motivation translates into greater emotional and behavioral engagement, highlighting the interconnectedness of motivation and engagement dimensions.

Contextual Factors Influencing Gender Differences: Cultural and societal norms in Nepal play a crucial role in shaping gender differences in motivation and engagement. Females often face societal pressures to excel academically as a means of empowerment, while males are encouraged to focus on career-oriented goals. These cultural dynamics reinforce the observed patterns of intrinsic and extrinsic

motivation and engagement styles. The findings resonate with the study by Gautam (2018), which identified similar trends among university students in Nepal.

Implications of Findings

The results have important implications for educators and policymakers. To promote equitable learning environments, it is essential to design interventions that address gender-specific needs and motivations. For instance, incorporating collaborative and emotionally engaging activities may further enhance females' participation, while introducing competitive and task-oriented elements could cater to males' preferences. Additionally, fostering intrinsic motivation through autonomy-supportive teaching practices can benefit all students, regardless of gender.

These findings bridge the gap between theoretical frameworks, such as SDT, Social Role Theory, and Expectancy-Value Theory, and their application in the Nepali context. They provide a comprehensive understanding of how gender influences academic behaviors and offer actionable insights for enhancing motivation and engagement in higher education settings.

Conclusion and Implications

Conclusion

This study explored gender differences in academic motivation and classroom engagement among university students in Kathmandu. The findings revealed significant gender-based disparities, with female students exhibiting higher levels of intrinsic motivation and emotional engagement, while male students displayed greater tendencies toward extrinsic motivation and task-oriented engagement. These results align with established theoretical frameworks such as Self-Determination Theory (Deci & Ryan, 1985), Social Role Theory (Eagly, 1987), and Expectancy-Value Theory (Eccles & Wigfield, 2002), providing a nuanced understanding of how societal and cultural factors shape academic behaviors.

The positive correlation and predictive relationship between motivation and engagement underscore the interconnected nature of these constructs. Females' higher intrinsic motivation contributed to greater classroom participation and emotional involvement, while males' task-oriented approach was associated with their extrinsic motivational drives. These findings not only fill existing gaps in the literature on South Asian contexts but also offer valuable insights into the unique cultural dynamics influencing gendered academic experiences in Nepal.

Implications

The implications of this study are both theoretical and practical. From a theoretical perspective, the findings validate the applicability of global motivation and engagement theories in a Nepali context, emphasizing the need for culturally specific adaptations. These results also contribute to the broader discourse on gender and education by highlighting the intricate interplay between motivation, engagement, and cultural norms.

From a practical standpoint, the findings offer actionable recommendations for educators and policymakers:

1. Gender-Sensitive Teaching Practices: Teachers should adopt gender-sensitive strategies to cater to the distinct motivational and engagement patterns of male and female students. For example, integrating collaborative and emotionally engaging activities can further enhance females' intrinsic motivation, while incorporating competitive and task-oriented elements may better align with males' preferences.

2. Promoting Intrinsic Motivation: Educational institutions should focus on fostering intrinsic motivation across all students by creating autonomy-supportive learning environments. Activities that emphasize personal growth, creativity, and mastery of skills can help reduce the reliance on extrinsic motivators.

3. Tailored Interventions: Gender-based interventions such as mentorship programs and peer support groups can help address specific challenges faced by male and female students. For instance, mentorship for females could focus on building confidence and resilience, while programs for males could emphasize emotional engagement and collaborative learning.

4. Policy Reforms: Policymakers should consider integrating gender equity initiatives into higher education frameworks. Addressing societal and cultural barriers that perpetuate gender stereotypes can create a more inclusive academic environment.

5. Future Research Directions: Future studies could explore other dimensions of motivation and engagement, such as the role of socio-economic status, academic disciplines, and institutional support, to develop a more comprehensive understanding of gender differences in education.

In conclusion, this study underscores the importance of addressing gender-specific needs in academic settings to promote equitable and effective learning experiences. By leveraging these findings, educators and policymakers can work collaboratively to enhance the academic outcomes of both male and female students, contributing to a more inclusive and empowered society

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