



THE RELATIONSHIP BETWEEN SELF-ESTEEM, MOTIVATION AND ACADEMIC ENGAGEMENT AMONG UNIVERSITY STUDENTS

SÎRBU, MARINELA ^a, MOMANU, MIRELA-CLAUDIA ^a, GHERGHE, ELENA CRINELA ^a

^a Hyperion University, Faculty of Psychology and Educational Sciences, Department of Psychology

Abstract

The present study aimed to examine in depth the relationship between self-esteem, academic motivation, and students' academic engagement, considering the significant impact of these psychological dimensions on educational success and adaptation to the demands of the university environment. Within the academic context, self-esteem, defined as students' perceptions of their own worth and competence, plays a crucial role in shaping self-confidence and the ability to cope with academic challenges. Accordingly, one of the main objectives of the study was to explore the relationship between self-esteem and academic engagement by examining the extent to which students' self-perceptions influence their involvement in educational activities.

Another objective of the research was to investigate the role of academic motivation in determining students' level of academic engagement. Academic motivation, encompassing both intrinsic motivation (the desire to learn driven by interest, enjoyment, and curiosity) and extrinsic motivation (orientation toward external rewards, such as career prospects and social recognition), represents the driving force that encourages students to persist in academic activities even when they become challenging. This study sought to evaluate how each type of motivation influences students' participation and persistence, with the aim of highlighting the distinct effects of intrinsic and extrinsic motivation on academic engagement.

The findings revealed a strong relationship among these constructs and identified several characteristics that may be further explored to enhance students' motivation, self-esteem, and academic engagement within the higher education environment.

Keywords: *academic motivation, academic engagement, self-esteem.*

1. INTRODUCTION

Among university students, self-esteem influences not only self-confidence but also the way students approach academic challenges and respond to failure. Students with high self-esteem tend to adopt a more proactive approach to achieving their academic goals and are generally more capable of overcoming obstacles than those with low self-esteem. Similarly, academic motivation, defined as the set of processes and factors that determine the energy, direction, and persistence of learning-related behaviors, has a significant influence on students' academic engagement. Previous research has demonstrated that both intrinsic motivation (the desire to learn driven by personal interest and curiosity) and extrinsic motivation (motivation oriented toward external rewards or the avoidance of negative consequences) contribute to students' level of engagement, resilience in the face of academic challenges, and overall

academic achievement. In an educational environment characterized by increasingly demanding academic requirements, motivation can be the determining factor that distinguishes students who successfully reach their full potential from those who experience difficulties in adaptation or academic performance.

The effects of self-esteem on academic performance have been well documented in the literature. Longitudinal studies have shown that positive self-esteem is a significant predictor of academic success, as it contributes to higher levels of motivation and greater persistence when facing academic challenges (Rosenberg, Schooler, & Schoenbach, 1989). Furthermore, individuals with high self-esteem tend to approach academic tasks with greater confidence and are more likely to employ effective self-regulated learning strategies, such as planning, goal setting, and self-monitoring of their progress (Zimmerman, 2002). In contrast, low self-esteem has been associated with less adaptive outcomes, including a greater tendency to avoid effort, increased vulnerability to stress and anxiety, and reduced persistence in the face of academic difficulties (Baumeister et al., 2003).

Although high self-esteem is generally considered desirable, research has also highlighted the potential negative consequences of excessively elevated self-esteem. Baumeister and colleagues introduced the concept of narcissistic self-esteem, suggesting that individuals with unrealistically inflated self-views may display defensive behavior and a low tolerance for criticism. Such individuals often experience difficulties accepting failure, which may lead to interpersonal conflicts and ineffective adaptation to life's challenges.

In addition to family influences, the educational environment plays a crucial role in the development of self-esteem. Relationships with both peers and teachers can profoundly shape students' perceptions of themselves. A positive school climate, in which students feel accepted, respected, and valued, promotes the development of healthy self-esteem. Conversely, experiences of bullying and social exclusion can undermine self-esteem, contributing to feelings of inadequacy and social withdrawal. Therefore, social relationships within the educational setting are fundamental, as they shape how individuals perceive themselves in relation to others, and both positive and negative interpersonal experiences may have lasting effects on self-evaluation (Chubb, Fertman, & Ross, 1997).

Within the educational environment, teachers' involvement and peer relationships play a significant role in shaping students' self-esteem. Research has shown that a positive educational climate, characterized by acceptance, cooperation, and social support, contributes to the development of healthy self-esteem (Wentzel, 1998). Teachers who adopt an inclusive and empathetic teaching approach by providing constructive feedback and emotional support foster students' positive perceptions of their own worth and competence (Ryan & Deci, 2000). Conversely, highly competitive school environments, as well as experiences of bullying and social exclusion, may have the opposite effect, leading to insecurity and social withdrawal, both of which are associated with lower levels of self-esteem (Juvonen & Graham, 2014).

Cross-cultural research has further demonstrated that cultural values influence the development and expression of self-esteem. Hofstede (1980) argued that the distinction between individualistic and collectivistic cultures has important implications for self-evaluation. In individualistic cultures, where personal achievement and individual success are highly valued, self-esteem is often closely tied to accomplishments and perceived competence. Consequently, academic or personal failures may exert a stronger negative impact on self-evaluation, resulting in greater fluctuations in self-esteem (Heine et al., 1999). In contrast, collectivistic cultures, which emphasize interpersonal relationships, group harmony, and collective well-being, tend to foster a form of self-esteem that is more strongly grounded in social connectedness and contribution to the group. As a result, self-esteem in these cultural contexts is generally more stable and less vulnerable to fluctuations arising from individual successes or failures.

Research by Perloff (2014) suggests that adolescents are particularly vulnerable to media influences due to the developmental stage during which their identity and self-esteem are still being formed. Excessive use of social media and continuous exposure to the "idealized images" presented by influencers and celebrities may trigger a cycle of social comparisons, leading to fluctuating or diminished self-esteem and negatively affecting adolescents' mental health and overall well-being.

Self-esteem is a fundamental psychological construct that influences not only individuals' self-perceptions but also students' academic performance. This complex relationship is mediated by several variables, including academic motivation, engagement in educational activities, and learning strategies, all of which have a substantial impact on academic achievement. Self-esteem refers to an individual's subjective evaluation of his or her own worth and competence, and higher levels of self-esteem are consistently associated with better academic outcomes. This relationship can be explained through several psychological and social mechanisms.

Empirical research consistently supports the positive relationship between self-esteem and academic performance. For example, a study conducted by Marsh and Craven (2006) found that students with higher levels of self-esteem achieved better academic grades and demonstrated greater involvement in educational activities than those with lower levels of self-esteem. Their findings further indicated that students with positive self-esteem tend to perform better academically because they exhibit greater motivation, increased perseverance when facing challenges, and a more positive attitude toward learning.

These findings are further supported by research emphasizing the importance of a positive educational climate in which students feel accepted, respected, and supported. Such an environment not only promotes the development of healthy self-esteem but also enhances academic performance. Healthy self-esteem contributes to the establishment of positive relationships with both peers and teachers, thereby fostering cooperation and collaborative learning. Studies have shown that students who perceive strong support from their academic community are more likely to participate actively in the learning process and achieve higher levels of academic performance (Wentzel, 1998).

An academic environment that promotes mutual support and values each individual contributes to the development of a sense of belonging, which, in turn, has a positive influence on self-esteem and, consequently, on academic achievement (Osterman, 2000). Conversely, a lack of social support may intensify feelings of insecurity and limit students' access to the personal and social resources necessary for academic success. Accordingly, research has consistently demonstrated that self-esteem is a significant predictor of academic performance.

Both intrinsic and extrinsic motivation are also central to understanding the relationship between self-esteem and academic achievement. Intrinsic motivation, defined as the desire to learn for the inherent enjoyment and personal satisfaction derived from the learning process, is closely associated with self-esteem. Students with higher levels of self-esteem are more likely to engage in learning voluntarily, exploring and deepening their knowledge of topics that interest them, which promotes deeper understanding and superior academic performance (Deci & Ryan, 2000). In contrast, extrinsic motivation, which is driven by external rewards and social recognition, may be less effective in sustaining long-term academic engagement, particularly when students' self-esteem is low and heavily dependent on external validation (Linnenbrink & Pintrich, 2002). Although extrinsic motivation may enhance academic performance under certain circumstances, its long-term impact on engagement is often limited, as students who rely primarily on external rewards may develop a more superficial approach to learning rather than a genuine commitment to knowledge acquisition (Deci & Ryan, 2000).

The study conducted by Fredricks, Blumenfeld, and Paris (2004) demonstrated that motivation is closely associated with academic engagement, influencing not only the amount

of time students devote to educational activities but also the quality of their participation. Motivated students are more likely to engage actively in classroom discussions, collaborate effectively with their peers, and take initiative in the learning process. Such active involvement in educational activities is essential for the development of critical thinking skills and the acquisition of deep, meaningful knowledge. Motivation also influences how students manage their time and academic resources. Intrinsically motivated students are more likely to organize their time effectively, set clear learning goals, and seek additional resources to enhance their understanding and academic performance.

Technology has dramatically transformed the educational landscape, reshaping the ways in which students engage in learning activities. An increasing number of studies have highlighted both the positive and negative effects of technology on academic engagement, examining how different forms of educational technology can either facilitate or hinder the learning process. This section reviews recent research on the use of technology in education, its effects on students' motivation and academic engagement, and the challenges faced by both students and educators as digital technologies become increasingly integrated into learning environments. Much of the recent literature has focused on the ways technology is utilized within educational settings. With the rapid advancement of digital technologies, education has evolved beyond traditional instructional methods to incorporate online learning platforms, multimedia resources, educational applications, and digital collaboration tools.

Research suggests that technology can have a significant impact on students' motivation and academic engagement. The use of online learning platforms enables students to access educational resources, participate in discussions, and collaborate with peers in a flexible and convenient manner. This not only facilitates the learning process but also encourages students to engage more actively in educational activities. Furthermore, educational technologies support personalized learning by allowing students to progress at their own pace and adapt their educational experiences to their individual needs. Such flexibility not only enhances students' academic engagement but also fosters a greater sense of autonomy and control over their own learning process, both of which are positively associated with intrinsic motivation (Deci & Ryan, 2000).

However, not all studies have reported positive effects of technology on academic engagement. A number of challenges have been associated with the integration of technology into education. For example, excessive reliance on digital technologies may contribute to increased distraction, reducing students' ability to maintain focus on learning activities. Howard-Jones (2014) emphasized that frequent use of social media and other digital platforms during study sessions may negatively affect academic engagement, as students are often tempted to engage in entertaining or non-academic activities rather than concentrate on educational tasks. Furthermore, unequal access to technology may create disparities among students, thereby limiting the academic engagement of those who lack adequate technological resources. A report published by the Organisation for Economic Co-operation and Development (OECD, 2015) highlighted that inequalities in access to digital technologies can significantly influence students' learning experiences and academic engagement, underscoring the need to address these disparities in order to promote equitable learning opportunities.

Within the context of the relationship among self-esteem, motivation, and students' academic engagement, future research directions are essential for advancing the understanding of this complex phenomenon and for developing effective educational interventions. As educational environments continue to evolve, shaped by technological innovations and broader socio-cultural changes, it is increasingly important to investigate additional factors that may influence these relationships and contribute to students' academic success and well-being.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

In the contemporary educational context, understanding the factors that contribute to students' academic success has become increasingly important. Within a university environment characterized by diverse academic, psychological, and social challenges, students' self-perceptions and motivation play a crucial role in shaping both their academic performance and their level of engagement. Consequently, constructs such as self-esteem, academic motivation, and academic engagement constitute fundamental components of the student experience, directly influencing not only educational achievement but also students' personal and professional development.

Self-esteem represents a core component of personal identity, reflecting the way individuals perceive and evaluate their own abilities, competencies, and overall self-worth. The primary aim of the present study is to examine the relationships among students' self-esteem, academic motivation, and academic engagement, as these constructs represent key factors underlying students' academic development and educational trajectories. Specifically, the study seeks to investigate the association between self-esteem and academic motivation, to evaluate the extent to which these variables are related to academic engagement, and to identify potential differences according to academic characteristics that may influence students' educational experiences, such as year of study, grade point average (GPA), and other indicators of academic progress.

2.2. HYPOTHESES

The following research hypotheses were formulated:

H1: There is a significant association between students' self-esteem and amotivation.

H2: There is a significant association between students' intrinsic motivation, extrinsic motivation, and academic engagement.

H3: There is a significant association between students' amotivation and academic engagement.

H4: There are significant differences in self-esteem, intrinsic motivation, extrinsic motivation, amotivation, and academic engagement among students enrolled in different years of study.

3. METHOD

In the contemporary educational context, understanding the factors that contribute to students' academic success has become increasingly important. Within a university environment characterized by diverse academic, psychological, and social challenges, students' self-perceptions and motivation play a crucial role in shaping both their academic performance and their level of engagement.

Accordingly, constructs such as self-esteem, academic motivation, and academic engagement have emerged as fundamental components of the student experience, directly influencing not only educational achievement but also students' personal and professional development. Self-esteem constitutes a core component of personal identity, reflecting the way

individuals perceive, evaluate, and value their own abilities, competencies, and overall sense of self-worth.

The study sample consisted of 105 undergraduate students enrolled across the three years of the bachelor's degree program. The sample was predominantly female, comprising 80 women and 25 men. The mean age of the participants was 30 years.

Participants were asked to complete a series of socio-demographic questions in order to characterize the sample according to several demographic variables. A non-probability (convenience) sampling method was employed, with the sole inclusion criterion being current enrollment as a university student. Data were collected online through a Google Forms questionnaire.

Participation in the study was voluntary and anonymous, and all responses were treated confidentially. Participants were informed that the study complied with ethical principles regarding data confidentiality, anonymity, and participant protection. Statistical analyses were conducted exclusively at the group level, and no individual participant data were reported or disclosed in any scientific publication.

The study employed the following psychometric instruments:

The Rosenberg Self-Esteem Scale (RSES), developed by Morris Rosenberg in 1965, was used to assess participants' global self-esteem. It is one of the most widely used and well-established instruments in psychological research examining mental health, well-being, and personal development. Validation studies have consistently demonstrated that the scale possesses strong psychometric properties, including high internal consistency, reliability, and construct validity, making it suitable for use across clinical, educational, and social psychology research. The instrument consists of ten items that assess individuals' overall evaluation of their self-worth and personal competence.

Academic motivation was assessed using the Academic Motivation Scale (AMS-C 28), College (CEGEP) Version, developed by Vallerand, Pelletier, Blais, Brière, Senécal, and Vallières (1993). The instrument was originally published in *Educational and Psychological Measurement* and comprises 28 items organized into three higher-order motivational dimensions: intrinsic motivation, extrinsic motivation, and amotivation. The AMS-C 28 has been validated across numerous cultural contexts, with research consistently confirming its factorial structure, reliability, and validity. It is widely employed in educational research to assess students' motivational orientations, evaluate the effectiveness of interventions designed to enhance academic motivation, and investigate the relationship between motivation and educational outcomes.

Academic engagement was assessed using the Academic Engagement Scale (AES), developed by Zhang, Shi, Yun, Li, Wang, He, and Miao (2015). The AES is a psychometric instrument designed to evaluate students' engagement in academic settings. Academic engagement is generally conceptualized as a multidimensional construct encompassing behavioral, emotional, and cognitive components. Previous validation studies have demonstrated that the scale possesses satisfactory reliability across repeated administrations and strong construct validity, indicating that it accurately measures the concept of academic engagement. The Academic Engagement Scale is widely used to identify students at risk of academic disengagement, to inform interventions aimed at increasing student engagement, and to evaluate the effectiveness of educational programs and instructional practices.

The items from all instruments used in the study were integrated into a questionnaire developed using Google Forms, which also included questions designed to collect socio-demographic information. The questionnaire was administered online, with data collection taking place between 2024 and 2025. Following data collection, responses were coded and entered into the IBM SPSS Statistics software package for statistical analysis. Descriptive and inferential statistical analyses were performed, and appropriate statistical tests were conducted

to evaluate each research hypothesis. The study employed a correlational research design (N : O_1 , O_2 , O_3), where N represents a non-probability (convenience) sample and O_1 , O_2 , and O_3 represent the measurements of the study variables (Vasiliu, 2018). The findings were interpreted from a psychological perspective, and the final conclusions integrated the theoretical framework, recent empirical research, and the results obtained in the present study.

4. RESULTS

The exploratory and normality analyses of the dependent variables indicated that the study variables exhibited mixed distributions, with some variables following a normal distribution and others deviating from normality. Consequently, nonparametric statistical tests were selected to evaluate the proposed research hypotheses.

H1: There is a significant association between students' self-esteem and amotivation.

To test this hypothesis, Spearman's rank-order correlation coefficient (Spearman's rho) was calculated, with the following results:

Table 1. Associations between self-esteem and amotivation

	1.	2.
1. Self-Esteem	1.000	.
2. Amotivation	-.216*	1.000
	.027	.

*. Correlation is significant at the 0.05 level (2-tailed)

The findings indicate that participants with higher levels of self-esteem tend to report lower levels of amotivation, whereas individuals with lower self-esteem are more likely to experience a lack of motivation, perceive their efforts as ineffective or meaningless, and encounter difficulties in identifying reasons to engage in academic activities.

These results are consistent with Self-Determination Theory (Deci & Ryan), which posits that a positive self-perception promotes active engagement and reduces the likelihood of experiencing amotivation.

Regarding effect size, according to the criteria proposed by Cohen (1988), the obtained correlation coefficient ($r = -.216$) represents a small-to-moderate effect. Although the relationship is statistically significant, its magnitude is relatively modest, suggesting that self-esteem constitutes only one of several factors influencing students' levels of academic amotivation.

An additional estimate of the effect size, based on the coefficient of determination ($r^2 = .047$), indicates that approximately 4.7% of the variance in amotivation is associated with variations in self-esteem. Consequently, more than 95% of the variance is explained by other factors, such as self-efficacy, perceived competence, social support, educational climate, self-regulated learning strategies, or personality characteristics.

H2: There is a significant association between students' intrinsic motivation, extrinsic motivation, and academic engagement.

To test this hypothesis, Spearman's rank-order correlation coefficient (Spearman's rho) was computed, with the following results:

Table 2. Associations between intrinsic motivation and academic engagement

	1.	2.
1. Intrinsic motivation	1.000	.
2. Academic engagement	.765**	1.000

** . Correlation is significant at the 0.01 level (2-tailed)

The correlation analysis revealed a strong positive and statistically significant relationship between intrinsic motivation and academic engagement, with a correlation coefficient of $r = .765$, $p < .001$. This finding indicates that students who exhibit higher levels of intrinsic motivation—characterized by a genuine interest in learning, satisfaction derived from acquiring new knowledge, and enjoyment of engaging in academic activities—also tend to demonstrate higher levels of academic engagement.

The results suggest that the more students' motivation to learn is driven by internal factors, such as curiosity, personal growth, and the satisfaction of developing competence, the more behaviorally, cognitively, and emotionally engaged they become in the educational process. The findings of the present study are consistent with Self-Determination Theory proposed by Edward L. Deci and Richard M. Ryan, which identifies intrinsic motivation as one of the most important psychological resources underlying active engagement, persistence, and academic achievement. Furthermore, these results are in agreement with Vallerand's motivational model, according to which self-determined motivation promotes successful adaptation and sustained engagement in educational activities.

With respect to effect size, according to the criteria proposed by Cohen (1988), the obtained correlation coefficient ($r = .765$) represents a large effect, indicating a strong association between intrinsic motivation and academic engagement. The corresponding coefficient of determination ($r^2 = .585$) indicates that approximately 58.5% of the variance in academic engagement is associated with variations in intrinsic motivation, representing a substantial proportion of explained variance in the context of educational psychology research.

These findings suggest that intrinsic motivation is one of the strongest predictors of academic engagement. Nevertheless, approximately 41.5% of the variance in academic engagement remains attributable to other psychological and contextual factors, including self-efficacy, self-regulated learning strategies, personality traits, social support, and the educational climate.

Table 3. Associations between extrinsic motivation and academic engagement

	1.	2.
1. Extrinsic motivation	1.000	.
2. Academic engagement	.639**	1.000

** . Correlation is significant at the 0.01 level (2-tailed)

The results of the statistical analysis revealed a strong positive and statistically significant relationship between extrinsic motivation and academic engagement, with a correlation coefficient of $r = .639$, $p < .001$.

These findings suggest that students who are motivated by external factors—such as achieving high grades, gaining social recognition, obtaining rewards, enhancing future career

prospects, or avoiding negative consequences—tend to demonstrate higher levels of academic engagement. Accordingly, as levels of extrinsic motivation increase, students also exhibit greater behavioral, cognitive, and emotional engagement in the learning process.

These findings are consistent with Self-Determination Theory developed by Edward L. Deci and Richard M. Ryan, which proposes that extrinsic motivation can support academic engagement, particularly when its regulatory processes are more internalized (e.g., identified or integrated regulation). Although intrinsic motivation is generally regarded as the most adaptive form of motivation, the literature indicates that extrinsic motivation can also promote academic engagement and achievement when externally oriented goals are perceived as personally meaningful and congruent with an individual's values.

With respect to effect size, according to the criteria proposed by Cohen (1988), the obtained correlation coefficient ($r = .639$) represents a large effect, indicating a strong association between extrinsic motivation and academic engagement. The corresponding coefficient of determination ($r^2 = .408$) indicates that approximately 40.8% of the variance in academic engagement is associated with variations in extrinsic motivation, representing a substantial effect. The remaining 59.2% of the variance is attributable to other psychological and contextual factors, including intrinsic motivation, self-efficacy, self-regulated learning strategies, personality traits, and characteristics of the educational environment.

H3: There is a significant association between students' amotivation and academic engagement.

To test this hypothesis, Spearman's rank-order correlation coefficient (Spearman's rho) was computed, with the following results:

Table 4. Associations between amotivation and academic engagement

	1.	2.
1. Amotivation	1.000	
2. Academic engagement	-.215* .027	1.000 .

*. Correlation is significant at the 0.05 level (2-tailed)

The results revealed a negative and statistically significant relationship between amotivation and academic engagement, with a correlation coefficient of $r = -.215$, $p = .027$.

These findings indicate that students with higher levels of amotivation tend to exhibit lower levels of academic engagement. Specifically, as students experience a stronger sense of purposelessness, perceive their efforts as ineffective, or have greater difficulty identifying meaningful reasons for engaging in university studies, their behavioral, cognitive, and emotional engagement in the learning process decreases.

These findings are consistent with Self-Determination Theory developed by Edward L. Deci and Richard M. Ryan, according to which amotivation represents the lowest level of self-determination and is characterized by the absence of intention to act, low perceived competence, and a diminished sense of value attributed to one's activities. Consequently, amotivated students are more likely to display limited interest in learning, reduced participation in academic activities, and an increased risk of academic disengagement and university dropout.

According to the criteria proposed by Cohen (1988), the obtained correlation coefficient ($r = -.215$) represents a small effect. Although the relationship is statistically significant, its

magnitude is modest, suggesting that amotivation influences academic engagement but constitutes only one of many factors contributing to students' levels of engagement.

The corresponding coefficient of determination ($r^2 = .046$) indicates that approximately 4.6% of the variance in academic engagement is associated with variations in amotivation. Thus, more than 95% of the variance is explained by other psychological and contextual factors, including intrinsic and extrinsic motivation, self-efficacy, self-esteem, self-regulated learning strategies, personality traits, and characteristics of the educational environment.

H4: There are significant differences in self-esteem, intrinsic motivation, extrinsic motivation, amotivation, and academic engagement among students enrolled in different years of study.

To test this hypothesis, the Kruskal–Wallis H test was employed, as the majority of the study variables did not meet the assumption of normality. Differences were examined across three independent groups: first-year, second-year, and third-year undergraduate students.

The results for differences in self-esteem are presented in Tables 5 and 6.

Table 5. Mean ranks for self-esteem of students from different study year

	N	Mean Rank
1. Self-esteem – first-year undergraduate students	14	35.04
2. Self-esteem – second-year undergraduate students	39	50.77
3. Self-esteem – third-year undergraduate students	52	59.51
Total	105	

Table 6. Kruskal-Wallis H test results for self-esteem

	Self-esteem
Chi-Square	7.52
df	2
Asymp. Sig.	.023

Differences in self-esteem among first-, second-, and third-year undergraduate students were examined using the Kruskal–Wallis H test, as comparisons involved three independent groups.

The results revealed statistically significant differences in self-esteem across the three groups, $\chi^2 = 7.52, p = .023$. This finding indicates that year of study is associated with variations in students' self-esteem.

An examination of the mean ranks showed a progressive increase in self-esteem as students advanced through their university studies. First-year students obtained the lowest mean rank (*Mean Rank* = 35.04), followed by second-year students (*Mean Rank* = 50.77), whereas third-year students achieved the highest mean rank (*Mean Rank* = 59.51).

These findings suggest that accumulated academic experience and gradual adaptation to the demands of the university environment may contribute to the development of a more positive self-concept and greater confidence in one's abilities.

With respect to effect size, the obtained value ($\eta^2 = .054$) indicates a small-to-moderate effect. This finding suggests that approximately 5.4% of the variance in self-esteem is associated with differences in year of study, indicating that academic year exerts a modest but statistically meaningful influence on students' levels of self-esteem.

The results regarding differences in intrinsic motivation of students are presented in Tables 7 and 8.

Table 7. Mean ranks for intrinsic motivation of students from different study year

	N	Mean Rank
1. Intrinsic motivation – first-year undergraduate students	14	59.86
2. Intrinsic motivation – second-year undergraduate students	39	52.18
3. Intrinsic motivation – third-year undergraduate students	52	51.77
Total	105	

Table 8. Kruskal-Wallis H test results for intrinsic motivation

	Intrinsic motivation
Chi-Square	.83
df	2
Asymp. Sig.	.662

The results indicated no statistically significant differences in intrinsic motivation among students across the three years of study, $\chi^2 = 0.83$, $p = .662$. Therefore, the hypothesis that intrinsic motivation differs according to year of study was not supported by the data.

An examination of the mean ranks showed that first-year students obtained the highest mean rank (*Mean Rank* = 59.86), followed by second-year students (*Mean Rank* = 52.18) and third-year students (*Mean Rank* = 51.77). Although these descriptive differences suggest slightly higher levels of intrinsic motivation among students at the beginning of their university studies, the observed variations were small and did not reach statistical significance.

These findings indicate that students' genuine interest in learning and the satisfaction derived from academic activities remain relatively stable throughout the different years of undergraduate study.

The results regarding differences in extrinsic motivation are presented in Tables 9 and 10.

Table 9. Mean ranks for extrinsic motivation of students from different study year

	N	Mean Rank
1. Extrinsic motivation – first-year undergraduate students	14	52.11
2. Extrinsic motivation – second-year undergraduate students	39	55.79
3. Extrinsic motivation – third-year undergraduate students	52	51.14
Total	105	

Table 10. Kruskal-Wallis H test results for extrinsic motivation

	Extrinsic motivation
Chi-Square	.53
df	2
Asymp. Sig.	.765

The results indicated no statistically significant differences in extrinsic motivation among students across the three years of study, $\chi^2 = 0.53$, $p = .765$. Therefore, year of study does not appear to have a significant influence on motivation driven by external factors, such as rewards, social recognition, academic achievement, or future career prospects.

An examination of the mean ranks showed that second-year students obtained the highest mean rank (*Mean Rank* = 55.79), followed by first-year students (*Mean Rank* = 52.11) and third-year students (*Mean Rank* = 51.14). Although these descriptive differences suggest a

slight tendency toward higher levels of extrinsic motivation among second-year students, the observed variations were small and did not reach statistical significance.

The results regarding differences in amotivation are presented in Tables 11 and 12.

Table 11. Mean ranks for amotivation of students from different study year

	N	Mean Rank
1. Amotivation – first-year undergraduate students	14	73.11
2. Amotivation – second-year undergraduate students	39	47.99
3. Amotivation – third-year undergraduate students	52	51.35
Total	105	

Table 12. Kruskal-Wallis test results for amotivation

	Amotivation
Chi-Square	8.10
df	2
Asymp. Sig.	.017

The results revealed statistically significant differences in amotivation across the three groups of students, $\chi^2 = 8.10$, $p = .017$. This finding indicates that year of study is associated with differences in the level of academic amotivation.

An examination of the mean ranks showed that first-year students exhibited the highest level of amotivation (*Mean Rank* = 73.11), whereas second-year students obtained the lowest mean rank (*Mean Rank* = 47.99). Third-year students showed a slightly higher level of amotivation (*Mean Rank* = 51.35) than second-year students, but substantially lower than that observed among first-year students.

These findings suggest that students at the beginning of their university studies are more likely to experience feelings of amotivation, uncertainty regarding the purpose of their academic activities, and difficulty recognizing the value of learning. As students gain academic experience and adapt to the demands of the university environment, levels of amotivation tend to decrease.

With respect to effect size, the obtained value ($\eta^2 = .060$) indicates a medium effect. This finding suggests that approximately 6.0% of the variance in amotivation is associated with differences in year of study, indicating that progression through the university program exerts a modest but meaningful influence on reducing students' levels of amotivation.

The results regarding differences in academic engagement are presented in Tables 13 and 14.

Table 13. Mean ranks for academic engagement of students from different study year

	N	Mean Rank
1. Academic engagement – first-year undergraduate students	14	54.82
2. Academic engagement – second-year undergraduate students	39	55.38
3. Academic engagement – third-year undergraduate students	52	50.72
Total	105	

Table 14. Kruskal-Wallis test results for academic engagement

	Academic engagement
Chi-Square	.58
df	2
Asymp. Sig.	.748

The results indicated no statistically significant differences in academic engagement among students across the three years of study, $\chi^2 = 0.58$, $p = .748$. This finding suggests that year of study does not significantly influence students' behavioral, cognitive, and emotional engagement in academic activities.

An examination of the mean ranks revealed very similar values across the three groups. Second-year students obtained the highest mean rank (*Mean Rank* = 55.38), followed closely by first-year students (*Mean Rank* = 54.82), whereas third-year students obtained a slightly lower mean rank (*Mean Rank* = 50.72). However, these differences were minimal and not sufficiently large to indicate systematic variations in academic engagement as a function of students' university experience.

5. CONCLUSIONS

The primary aim of the present study was to examine the relationships among students' academic motivation, self-esteem, and academic engagement, as these constructs represent key factors underlying students' academic development and educational trajectories.

Self-esteem is a fundamental psychological construct that influences not only individuals' self-perceptions but also their academic performance. This complex relationship is mediated by multiple variables, including academic motivation, engagement in educational activities, and learning strategies, all of which exert a significant influence on academic outcomes. Self-esteem refers to an individual's subjective evaluation of his or her own worth and competence, and higher levels of self-esteem are consistently associated with superior academic performance. This relationship can be explained through several psychological and social mechanisms.

One of the most important mechanisms is the influence of self-esteem on students' intrinsic motivation. Individuals with high self-esteem tend to perceive themselves as capable of achieving their goals and overcoming academic challenges, which enhances their intrinsic motivation to learn. This increased motivation, in turn, promotes greater engagement in the educational process and encourages the development of effective learning strategies.

Another mechanism through which self-esteem influences academic performance is students' ability to cope with stress and academic failure. Students with lower levels of self-esteem are more likely to experience test anxiety and to become discouraged when confronted with setbacks. As a result, they may adopt avoidance behaviors, such as withdrawing from academic activities or avoiding challenging tasks due to fear of failure.

Academic motivation also has a substantial impact on the learning process and academic performance. Research has consistently shown that students who demonstrate high levels of motivation are more likely to engage actively in learning activities, employ effective study strategies, and persist in the face of academic difficulties. These students are more likely to establish realistic goals and effectively regulate their behavior to achieve them.

Another essential aspect of motivation is its influence on students' emotional functioning. Emotions play a crucial role in determining how individuals engage in academic activities and sustain their motivation throughout the learning process.

This interaction between emotions and motivation highlights the importance of creating a supportive learning environment that fosters both students' intrinsic motivation and their emotional well-being. Motivation is a complex and dynamic construct influenced by a wide range of internal and external factors. It plays a crucial role in the learning process and academic performance by shaping not only students' engagement in academic activities but also the ways in which they establish goals and regulate their behaviors. A thorough understanding of motivation is therefore essential for developing effective educational strategies that support students in achieving their full academic potential.

Students' academic engagement is essential not only for immediate educational success but also for the development of the knowledge, skills, and attitudes required for their future professional and personal lives. Academic engagement is also influenced by students' learning approaches and the strategies they adopt. Students who employ a deep learning approach are generally more engaged in the learning process, seeking to understand, integrate, and apply knowledge rather than merely memorizing information for examinations. These students are more likely to collaborate with their peers, exchange ideas, and ask questions, thereby contributing to an active and intellectually stimulating learning environment. In contrast, students who adopt a surface learning approach may appear to be engaged but are often motivated primarily by the need to pass examinations rather than by a genuine desire to develop a deep understanding of the subject matter.

Furthermore, students who perceive learning as relevant to their personal and professional goals are more likely to participate actively in academic activities. Positive emotions associated with the learning process, such as curiosity and enthusiasm, can enhance both academic engagement and learning satisfaction. Conversely, negative emotions, including anxiety and fear of failure, may undermine students' engagement and reduce the quality of their educational experience.

The findings of the present study, obtained through the statistical analyses conducted to test the research hypotheses, revealed several significant relationships and group differences among the psychological constructs investigated.

The results demonstrated a statistically significant, negative, and weak correlation between self-esteem and amotivation. Specifically, students with higher levels of self-esteem tended to report lower levels of amotivation.

The findings also revealed a statistically significant, positive, and strong correlation between intrinsic motivation and academic engagement, indicating that students with higher levels of intrinsic motivation were more likely to demonstrate greater academic engagement.

Furthermore, a statistically significant, positive, and strong correlation was identified between extrinsic motivation and academic engagement. This finding suggests that students with higher levels of extrinsic motivation also tended to exhibit higher levels of academic engagement.

Finally, the results indicated a statistically significant, negative, and weak correlation between amotivation and academic engagement. In other words, students with higher levels of amotivation tended to report lower levels of academic engagement.

The findings further indicate that statistically significant differences across years of study were observed only for self-esteem and amotivation. Self-esteem was highest among third-year students and lowest among first-year students, whereas amotivation was highest among first-year students and lowest among third-year students. These findings suggest that as students progress through their university studies and become more adapted to the academic environment, their self-esteem tends to increase while their levels of amotivation decrease.

The present study provides an empirical basis for the development of educational strategies aimed at enhancing both students' self-esteem and academic motivation. The findings may assist higher education institutions in creating supportive learning environments that foster students' psychological well-being, motivation, and academic engagement.

Such initiatives may include programs designed to strengthen interpersonal and socio-emotional skills, team-building activities, and peer support groups that encourage social interaction, collaboration, and a stronger sense of belonging within the academic community. These interventions have the potential to promote not only students' academic success but also their personal and professional development.

Furthermore, the development of communication platforms that facilitate interaction between faculty members and students could promote a better understanding of students' needs and strengthen interpersonal relationships within the academic environment. Future research on self-esteem, academic motivation, and academic engagement offers valuable opportunities to deepen our understanding of these interrelated constructs and to inform the development of effective strategies aimed at enhancing students' educational experiences. It is essential that the findings of such studies be translated into educational practice in order to create learning environments in which students feel supported, motivated, and actively engaged in the learning process.

Several limitations of the present study should be acknowledged. These include the use of a non-probability sampling method, the relatively small sample size, the online administration of the questionnaires, and the limited period of data collection. These factors may have introduced measurement and interpretative biases and limit the generalizability of the findings to the broader student population.

In an educational context that is becoming increasingly diverse and digitalized, further investigation of the relationships among self-esteem, motivation, and academic engagement may provide valuable guidance for the development of educational policies that are responsive to the needs of contemporary university students. A more comprehensive understanding of these interrelated psychological constructs can contribute to the creation of supportive and stimulating university environments that promote both academic success and student well-being.

Future research should focus on designing and evaluating targeted intervention models aimed at strengthening self-esteem, fostering sustainable academic motivation, and enhancing academic engagement. Such interventions could provide an empirical foundation for evidence-based educational support and learning strategies that promote not only short-term academic achievement but also the development of healthy self-esteem and enduring motivation, both of which are essential for students' long-term personal and professional development.

REFERENCES

- Baumeister, Roy & Campbell, JD & Krueger, Joachim & Vohs, Kathleen. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles?. *Psychological Science*. 4. 1-44.
- Chubb NH, Fertman CI, Ross JL. (1997) Adolescent self-esteem and locus of control: a longitudinal study of gender and age differences. *Adolescence*. Spring;32(125):113-29. PMID: 9105496.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106(4), 766–794. <https://doi.org/10.1037/0033-295X.106.4.766>

- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage Publications.
- Howard-Jones, P. (2014). Neuroscience and education: myths and messages. *Nat Rev Neurosci* 15, 817–824 <https://doi.org/10.1038/nrn3817>
- Juvonen J, Graham S. (2013) Bullying in schools: the power of bullies and the plight of victims. *Annu Rev Psychol.* 2014;65:159-85. doi: 10.1146/annurev-psych-010213-115030. Epub 2013 Aug 5. PMID: 23937767.
- Linnenbrink, E. A., & Pintrich, P. R. (2002). Motivation as an Enabler for Academic Success. *School Psychology Review*, 31, 313-327.
- Marsh, H. W., & Craven, R. G. (2006). Academic self-concept: Beyond the dusty old self-esteem concept. *The Australian Educational Researcher*, 33(2), 25-49.
- Osterman, Karen. (2000). Students' Need for Belonging in the School Community. Review of Educational Research – *Rev. Educ. Res.* 70. 323-367. 10.3102/00346543070003323.
- Perloff, R.M. (2014). Social Media Effects on Young Women's Body Image Concerns: Theoretical Perspectives and an Agenda for Research. *Sex Roles* 71, 363–377 <https://doi.org/10.1007/s11199-014-0384-6>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-Esteem and Adolescent Problems: Modeling Reciprocal Effects. *American Sociological Review*, 54, 1004-1018. <http://dx.doi.org/10.2307/2095720>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C., & Vallières, E. F. (1993). On the assessment of intrinsic, extrinsic, and amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. *Educational and Psychological Measurement*, 53(1), 159–172.
- Vasiliu, D. (2018). *Memento de cercetare în psihologie. Un ghid prietenos pentru studenți și nu numai...* București, E.D.P.
- Wentzel, K. R. (1998). Social relationships and motivation in school. In *Educational Psychologist*, 33(3), 167-183.
- Zhang, Y., Shi, W., Yun, L., Li, F., Wang, Y., He, Y., & Miao, D. (2015). Development of the Academic Engagement Scale for university students. *Chinese Journal of Clinical Psychology*, 23(5), 848–851.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70. https://www.oecd.org/en/publications/government-at-a-glance-2015_gov_glance-2015-en.html

Copyright: Submission of a manuscript implies that the work described has not except in the form of an abstract or as part of a published lecture, been published before (or thesis) and it is not under consideration for publication elsewhere; that when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher