

Research Article

Investigating the link between self-esteem and student motivation: Implication to higher education institutions

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Students in higher education are more sensitive and aware of their self-esteem as well as their motivation in learning. This study examined the level of self-esteem among college students and their motivation, as well as the underlying relationship between the two. The study employed a descriptive-correlational research design with 300 students from a local higher education institution in Philippines, who were conveniently sampled during the academic year of 2023-24. To obtain the essential data from the respondents, two structured instruments were used. The gathered data were then subjected to descriptive (frequency, percentage, mean, and standard deviation) and inferential (Analysis of Variance, Pearson-r and Linear Regression) analysis. Results revealed that students have a moderate level of self-esteem, accompanied by a general sense of motivation in various aspects of student motivation. Statistical analysis also revealed variance in terms of intrinsic motivation (by year level) and control of learning beliefs (by college and GPA). Substantial evidence of a relationship was also found between self-esteem and student motivation, wherein test anxiety was identified as a viable predictor of the respondents' self-esteem. The study concluded that self-esteem has a positive relationship with student motivation. Lastly, this investigation suggested some relevant implications.

Keywords: Correlation study; Higher education students; Student motivation; Student self-esteem

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1. Introduction

Within the context of higher education, the intricate interplay between students' self-esteem and motivation stands as a cornerstone in understanding and enhancing students' academic experiences and outcomes. Al-Abyadh and Abdel Azeem (2022) once stated that students can motivate, evaluate, and adjust their behavior. Self-esteem, defined as an individual's perception of their worth and capabilities, plays a significant role in shaping students' attitudes, beliefs, and behaviors in educational settings. Liu et al. (2022) emphasized that self-esteem is one of the leading contributors to anxiety for college students. Concurrently, motivation serves as a driving force that propels students towards their academic goals, influences their engagement levels, and impacts their overall academic performance. The motivation that exists in students drives them to be more enthusiastic to excel in their learning process (Kassa et al., 2025). On the other hand, Bureau et al. (2021) stated that the self-determined motivation among students is predicted by competence. Recognizing the complex relationship between students' self-esteem and motivation is essential for fostering a supportive learning environment and promoting students' academic success and personal growth.

In the case of motivation, various factors and variables also play significant roles. For instance, in the study by Howard et al. (2021), they concluded that motivation driven by a desire to obtain rewards or avoid punishment was associated with decreased well-being among students. Additionally, Ahn et al., (2021)

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theorized that a positive relationship exists between teacher and student autonomous motivation. In the paper by Pedler et al. (2021), they revealed that students with a high sense of belonging reported a higher degree of motivation in their studies. The presence or absence of motivation among higher education students is correlated with tendencies toward procrastination (Sanchez-Bolivar & Martinez, 2022). However, Mahdavi et al. (2021) concluded that more motivated students are more likely to be successful in their education. Local literature on self-esteem in higher education in the country includes Sison et al. (2021), who showed high student academic motivation. Paat (2023) also mentioned that academic motivation among senior high school students plays a role in their preparation for college. Suguis and Belleza (2022) stated that student motivation has a positive influence on student engagement.

Several factors are associated with an individual's self-esteem (Dancot et al., 2021). They include anxiety and self-efficacy. Additionally, better student-perceived relationships with teachers were associated with higher self-esteem among students (van Aalst et al., 2021). On the other hand, Zainuddin et al. (2022) claimed that the self-esteem of students is not associated with the time spent on social media. However, Abrar-ul-Hassan and Safdar (2022) found that self-esteem is associated with less problematic use of Facebook. Wang et al., (2021) also revealed that self-esteem and academic achievement transactionally facilitated each other. Gao et al. (2022) also believed that, on average, self-esteem levels of college students decline over the years. Cicek (2021) further noted that self-esteem is significantly associated with the psychological and subjective well-being of university students.

Numerous studies have individually examined the impact of self-esteem on students' academic performance and engagement. One of which was from Acosta-Gonzaga (2023), which showed the effects of self-esteem on emotional and behavioral disengagement. Yu et al. (2022) also reported that rural students in China have lower self-esteem and a higher prevalence of low self-esteem compared to their urban counterparts and the international level. Weber et al. (2023) also claimed that some student-athletes suffer from low self-esteem. In the case of Greek university students, Vagka et al. (2023) showed that 18.7% of their participants had low self-esteem, and the rest exhibited normal or high levels. According to Chang and Tsai (2022), both academic achievement and self-efficacy are influenced by students' emotional intelligence. However, the synergistic effects and reciprocal influences between these constructs remain a compelling area for further investigation. Research suggests that students with high self-esteem are more likely to exhibit intrinsic motivation, set ambitious goals, and persevere through challenges. In contrast, those with lower self-esteem may experience diminished motivation levels and encounter difficulties in maintaining focus and enthusiasm for learning. A previous paper by Suryani and Widhiyanto (2023) supports this claim, as students' motivation has a positive impact on learning. In the local context, Oducado (2021) found that self-esteem is a factor contributing to students' academic performance. Another study by Augusto (2022) suggests that self-esteem is associated with students' reading comprehension. Additionally, Luciano and Olipas (2021) noted that the self-esteem level of university students was moderate.

In the ever-evolving landscape of higher education, characterized by diverse student populations, varied learning environments, and evolving pedagogical approaches, understanding how students' self-esteem influences their motivation –and vice versa –holds immense significance for educators, administrators, and policymakers. Yap et al. (2021) emphasized that self-esteem and motivation significantly contribute to students' happiness. Saleh et al. (2021) also emphasized that motivation is a crucial factor in improving self-esteem among students. Huang et al. (2025) also claimed that a high level of self-esteem and strong academic motivation were attributed to the support coming from their scholarship program. Furthermore, Ahmad et al. (2023) suggested that strengthening motivation and promoting a growth mindset could foster a positive learning environment among students. Based on the analyzed and examined literature, it is evident that there is a scarcity of research that has simultaneously addressed both self-esteem and motivation in a single study. Additionally, there are limited to no local studies that have focused on the subject matter. This gap is the primary reason why this study was conceived. Exploring the intricate relationship between self-esteem and motivation can provide valuable insights into the underlying factors that drive students' academic engagement, performance, and overall well-being in higher education settings. This study aims to fill the knowledge and local literature gap regarding self-esteem and student motivation.

Therefore, this research aims to explore the complex relationship between students' self-esteem and motivation among higher education students. By examining the dynamic interactions and mutual influences between these two constructs, this study aims to illuminate the mechanisms that underpin students' motivation and self-esteem in the higher education context. Through a comprehensive exploration of the interplay between self-esteem and motivation, this research aims to contribute to the existing body of knowledge on student success factors, inform evidence-based practices in higher education, and empower

students to cultivate a positive self-concept, intrinsic motivation, and a resilient mindset, thereby navigating their academic journeys successfully.

2. Method

2.1. Research Design

This study employed a descriptive-correlational research design to address the research objectives. According to Devi et al. (2022), correlational research examines the relationships among two or more variables within a single group. This approach was appropriate for analyzing the relationship between students' self-esteem and learning motivation, as it allows the researcher to quantify and identify patterns of association while providing a basis for further statistical analysis.

2.2. Participants

The study's population comprised of students from a higher education institution since they have a much better behavioral development already. A total of 300 voluntary students participated in the online survey. These students were conveniently chosen for the study due to their availability and interest in participating in the survey. According to Memon et al., (2020) a sample of 160 – 300 is enough for a multivariate analysis, hence the 300 participants is more than enough for the investigation. The participants in this study were currently enrolled and studying at the participating institution for the second semester of the 2023-2024 academic year. This investigation was conducted from January to February 2024.

It is essential to note that no students were harmed during the data collection process, as it was primarily conducted online. The survey itself adhered to ethical standards and addressed data privacy issues, as stipulated by the institution. Table 1 depicts the basic demographic characteristics of the students.

Table 1
Demographic Characteristics of the Respondents

<i>Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>
Age		
Below 20 years old	129	43.0
21 – 25 years old	144	48.0
26 – 30 years old	13	4.3
Above 31 years old	14	4.7
Gender		
Female	232	77.3
Male	58	19.3
Prefer not to say	10	3.3
Year Level		
First Year	73	24.3
Second Year	49	16.3
Third Year	99	33.0
Fourth Year	79	26.3
College		
CAHS	61	20.3
CBA	80	26.7
CEAS	149	49.7
CHTM	10	3.3
GPA/ GWA		
1.00 – 1.99	212	70.7
2.00 – 2.00	85	28.3
3.00	3	1.0
Total	300	100.0

Table 1 represents a diverse group of respondents (N=300) in terms of age, gender, year level, college affiliation, and academic performance. Nearly half of the participants were aged 21–25 years (48.0%), followed by those below 20 years old (43.0%), while only a small proportion were aged 26–30 years (4.3%) or above 31 years (4.7%). The sample was predominantly female (77.3%), with males representing 19.3% and 3.3% preferring not to disclose their gender. In terms of academic year, most respondents were in their third

year (33.0%) or fourth year (26.3%), with fewer in the first (24.3%) and second (16.3%) years. The majority of students belonged to the College of Education, Arts and Sciences (CEAS; 49.7%), followed by the College of Business and Accountancy (CBA; 26.7%), the College of Allied Health Sciences (CAHS; 20.3%), and the College of Hospitality and Tourism Management (CHTM; 3.3%). Regarding academic performance, most students reported a GPA/GWA between 1.00 and 1.99 (70.7%), while 28.3% had a GPA of 2.00, and only 1.0% reported a GPA of 3.00.

2.3. Instruments

In this study, the researcher used two standardized scales. One for the students' self-esteem, which Rosenberg (1965) developed. This research instrument is a 10-item scale that measures an individual's overall self-worth by assessing both positive and negative self-perceptions. All of the items can be answered using a four (4) point Likert scale pattern ranging from strongly agree to disagree strongly. Example of the statements in the scale includes: "On the whole, I am satisfied with myself" and "I feel that I have a number of good qualities." It also has an internal consistency of .77, which is considered acceptable.

For the second scale, the study used Bin Dayel et al.'s (2018) student motivation scale. They composed a six (6) factor dimension scale which includes intrinsic goal orientation, extrinsic goal orientation, task value, control of learning belief, self-efficacy for learning and performance, and test anxiety. Example of items include: "In a class like this, I prefer course material that really challenges me, so I can learn new things" and "In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn." Its internal consistency ranges from .75 to .89, which is also considered acceptable.

The study also underwent pilot testing to ensure that the reliability of each scale is within an acceptable range. The result of the initial test was an overall coefficient of .941, which is considered excellent in terms of reliability.

2.4. Data Analysis

The gathered data underwent statistical treatment using the Statistical Package for Social Sciences version 23. The study analyzed both descriptive and inferential statistics. In particular, the frequency and percentage for the demographic characteristics of the study, as well as the mean and standard deviation for the students' self-esteem and motivation, are presented. The following scale was used in interpreting the mean scores: 1.00–1.80 = Very Low; 1.81–2.60 = Low; 2.61–3.40 = Moderately High; 3.41–4.20 = High; and 4.21–5.00 = Very High. Additionally, analysis of variance was utilized to test the variance among variables grouped by their demographic characteristics, Pearson's *r* was used to test the relationship, and finally, a linear regression was employed to predict student self-efficacy.

3. Results

In this study, the main purpose was to determine and analyze the level of student self-esteem and motivation and their underlying relationship together. The succeeding tables below summarized the results of the investigation.

Table 2
Level of Student Self-Esteem

Statements	Mean	SD	Interpretation
1) On the whole, I am satisfied with myself.	3.12	0.676	Moderately High
2) At times, I think I am no good at all.	2.92	0.842	Moderately High
3) I feel that I have a number of good qualities.	3.00	0.653	Moderately High
4) I am able to do things as well as most other people.	3.02	0.630	Moderately High
5) I feel I do not have much to be proud of.	2.62	0.907	Moderately High
6) I certainly feel useless at times.	2.73	0.873	Moderately High
7) I feel that I'm a person of worth, at least on an equal plane with others.	2.96	0.657	Moderately High
8) I wish I could have more respect for myself.	3.20	0.751	Moderately High
9) All in all, I am inclined to feel that I am a failure.	2.46	0.903	Low
10) I take a positive attitude toward myself.	3.26	0.696	Moderately High
Overall Mean	2.93	0.354	Moderately High

In Table 2, it presents the mean and standard deviation distribution for the level of student self-esteem. As seen from the table, the data indicates that overall, students exhibited a "moderately high" level of self-

efficacy, with an overall mean score of 2.93 (SD= 0.354). Specifically, statement 10, "I take a positive attitude toward myself." garnered the highest mean score with 3.26 with an associated standard deviation of 0.696 got a "moderately high" interpretation from the Likert scale. However, statement 9, "All in all, I am inclined to feel that I am a failure" garnered the lowest mean score with 2.46 (SD= 0.903) with a descriptive interpretation of "low." Collectively, these findings suggest a positive sense of self-worth and confidence among students, with room for improvement in addressing feelings of failure and inadequacy.

Table 3

Level of Student Motivation in terms of Intrinsic Goal Orientation

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) In a class like this, I prefer course material that really challenges me, so I can learn new things.	3.67	0.834	Motivated
2) In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.	3.82	0.789	Motivated
3) The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible	3.94	0.825	Motivated
4) When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade	3.45	0.864	Motivated
Overall Mean	3.72	0.662	Motivated

In Table 3, the result of mean and standard deviation distribution was presented for the level of student motivation in terms of intrinsic goal orientation. The table reveals that students exhibited a high level of intrinsic motivation, with an overall mean score value of 3.72 (SD= 0.662) which has an associated descriptive interpretation of "motivated." Specifically, statement 3, "The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible" generated a mean value of 3.94 with an associated standard deviation of 0.825 which translates to a Likert interpretation of "motivated." On the other hand, statement 4, "When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade" produced the lowest mean score with 3.45 with an associated standard deviation of 0.864 also got a descriptive interpretation of "motivated." The findings suggest that students are driven by a desire to thoroughly understand course content and engage with assignments that facilitate learning, even if these assignments are cognitively demanding. Overall, this high level of intrinsic motivation underscores students' enthusiasm for learning and their proactive approach to academic challenges, reflecting a positive orientation towards self-improvement and knowledge acquisition.

Table 4

Level of Student Motivation in terms of Extrinsic Goal Orientation

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) Getting a good grade in this class is the most satisfying thing for me right now.	4.02	0.971	Motivated
2) The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade	4.04	0.939	Motivated
3) If I can, I want to get better grades in this class than most of the other students	3.49	1.139	Motivated
4) I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	3.76	1.024	Motivated
Overall Mean	3.83	0.811	Motivated

For Table 4, the level of student motivation in terms of extrinsic goal orientation was assessed using mean and standard deviation distribution. As gleaned in the table, the data indicated that students exhibited a high level of extrinsic motivation, with an overall mean score value of 3.83 (SD= 0.811) which corresponds to a Likert interpretation of "motivated." Students expressed a strong focus on external rewards, such as obtaining good grades, improving their GPA, and demonstrating their abilities to others, as evidenced by mean scores ranging from 3.49 to 4.04, all of which fell within the motivated category. These findings suggest that external factors, such as grades, academic performance, and social recognition, play a significant

role in motivating students within the academic context. The high level of extrinsic motivation observed among students highlights the importance they attach to tangible outcomes and external validation in their academic pursuits.

Table 5

Level of Student Motivation in terms of Task Value

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) I think I will be able to use what I learn in this course in other courses.	3.83	0.867	Motivated
2) It is important for me to learn the course material in this class.	4.02	0.854	Motivated
3) I am very interested in the content area of this course.	3.87	0.848	Motivated
4) I think the course material in this class is useful for me to learn.	3.94	0.850	Motivated
5) I like the subject matter of this course.	3.87	0.838	Motivated
6) Understanding the subject matter of this course is very important to me.	4.01	0.839	Motivated
Overall Mean	3.92	0.730	Motivated

Table 5 displays the result of the mean and standard deviation distribution for the level of student motivation in terms of task value of the students. As revealed by the computation, the table revealed that students exhibited a high level of task value motivation, with an overall mean score of 3.92 with a corresponding standard deviation of 0.730. It also has an associated descriptive interpretation of "motivated." Also, statement 2, "It is important for me to learn the course material in this class" got the highest mean score with 4.02 (SD= 0.854) which aligns with an interpretation of "motivated." However, it was statement 1, "I think I will be able to use what I learn in this course in other courses" that obtained the lowest mean with a value of 3.83 (SD= 0.867) Collectively, students displayed a high level of interest and importance attached to the content area of the course, demonstrating a positive orientation towards learning and a strong intrinsic motivation to engage with the subject matter. These findings suggest that students perceive the course material as relevant, valuable, and personally meaningful, which in turn fuels their motivation to learn and achieve academic success.

Table 6

Level of Student Motivation in terms of Control of Learning Beliefs

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) If I study in appropriate ways, then I will be able to learn the material in this course.	4.01	0.804	Motivated
2) It is my own fault if I don't learn the material in this course	3.75	0.921	Motivated
3) If I try hard enough, then I will understand the course material	4.02	0.814	Motivated
4) If I don't understand the course material, it is because I didn't try hard enough	3.46	1.011	Motivated
Overall Mean	3.81	0.707	Motivated

Table 6 presents the level of student motivation in terms of control of learning beliefs, with mean scores and standard deviations provided for each statement. The data indicate that students exhibit a high level of motivation in this domain, with an overall mean score of 3.81 (SD= 0.707) which equates to a descriptive interpretation of "motivated." Specifically, statement 3, "If I try hard enough, then I will understand the course material" garnered the highest mean score of 4.02 (SD= 0.814) which corresponds to a Likert scale interpretation of "motivated." Students strongly believe in their ability to learn the course material if they study appropriately and make an effort. However, statement 4, "If I don't understand the course material, it is because I didn't try hard enough" generated the lowest mean value of 3.46 with a corresponding standard deviation of 1.011 and a descriptive interpretation of "motivated" as well. This finding means that students demonstrate a sense of personal responsibility for their learning outcomes relative to self-blame when they do not understand the material. These findings suggest that students hold internal locus of control beliefs, attributing their learning achievements to their efforts and study strategies. This sense of control and self-

efficacy empowers students to take proactive steps, persist through challenges, and actively engage in their learning process, ultimately contributing to their academic success and growth.

Table 7

Level of Student Motivation in terms of Self-Efficacy for Learning Performance

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) I believe I will receive an excellent grade in this class.	3.56	0.841	Motivated
2) I'm certain I can understand the most difficult material presented in the readings for this course	3.39	0.856	Moderately Motivated
3) I'm confident I can understand the basic concepts taught in this course.	3.70	0.810	Motivated
4) I'm confident I can understand the most complex material presented by the instructor in this course.	3.38	0.826	Moderately Motivated
5) I'm confident I can do an excellent job on the assignments and tests in this course.	3.48	0.785	Motivated
6) I expect to do well in this class.	3.69	0.869	Motivated
7) I'm certain I can master the skills being taught in this class.	3.51	0.814	Motivated
8) Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	3.55	0.792	Motivated
Overall Mean	3.53	0.696	Motivated

In Table 7, the level of student motivation in terms of self-efficacy for learning performance is evaluated by their mean and standard deviation distribution. One can decipher that the data reveals a generally high level of self-efficacy, with an overall mean score of 3.53 with a corresponding standard deviation of 0.696. It also has a descriptive interpretation of “motivated” in the Likert scale. In particular, statement 3, “I'm confident I can understand the basic concepts taught in this course” got the highest mean with a value of 3.70 (SD= 0.810) with an associated Likert interpretation of “motivated.” This finding implies that students express their confidence in their ability to excel in the course. On the other hand, statement 4, “I'm confident I can understand the most complex material presented by the instructor in this course” disclosed the lowest mean score with 3.38 (SD= 0.826) which also has a corresponding “motivated” descriptive interpretation. This result suggests that students believe in their capacity to understand course material, perform well on assignments and tests, and master the skills taught in the class. The findings highlight a positive orientation towards learning and a strong belief in their capabilities to succeed academically. This high level of self-efficacy can enhance students' motivation, resilience, and academic performance, as they approach challenges with confidence and a growth mindset, fostering a conducive environment for learning and achievement.

Table 8

Level of Student Motivation in terms of Test Anxiety

<i>Statements</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
1) When I take a test, I think about how poorly I am doing compared with other students.	3.27	1.035	Moderately Motivated
2) When I take a test I think about items on other parts of the test I can't answer	3.46	0.914	Motivated
3) When I take tests I think of the consequences of failing.	3.60	1.020	Motivated
4) I have an uneasy, upset feeling when I take an exam.	3.31	1.072	Moderately Motivated
5) I feel my heart beating fast when I take an exam.	3.46	1.099	Motivated
Overall Mean	3.42	0.840	Motivated

In Table 8, student motivation in terms of test anxiety is examined through mean and standard deviation distribution. As seen from the table, it indicates that students demonstrate a moderate level of test anxiety, with an overall mean score of 3.42 with an associated standard deviation of 0.840 and a corresponding descriptive interpretation of “motivated.” At the same time, the item with the highest mean score was statement 3, “When I take tests I think of the consequences of failing” with 3.60 (SD= 1.020). It also has a corresponding Likert scale of “motivated.” With this result, students report experiencing thoughts related to

performance comparison, unanswered test items, consequences of failure, unease, and physical symptoms, such as a fast-beating heart, during exams. However, the item with the lowest mean was statement 1, "When I take a test, I think about how poorly I am doing compared with other students" with a score of 3.27 (SD= 1.035) with a similar Likert interpretation of "motivated." This finding suggests that students fall within the moderately motivated to highly motivated categories in terms of test anxiety. The findings further implies that, although some level of anxiety is present during test-taking situations, students remain motivated to perform well and are actively engaged in the testing process. Understanding and addressing test anxiety can help students manage their stress levels, enhance their test performance, and promote a more positive testing experience.

Table 9

Variance in the Student Motivation and Student Self-Efficacy Level in Terms of Age

Variables		SS	df	MS	F	Sig.
Intrinsic Goal Orientation	Between Groups	1.094	3	0.365	0.827	.480
	Within Groups	130.480	296	0.441		
	Total	131.574	299			
Extrinsic Goal Orientation	Between Groups	3.043	3	1.014	1.546	.203
	Within Groups	194.194	296	0.656		
	Total	197.237	299			
Task Value	Between Groups	2.555	3	0.852	1.602	.189
	Within Groups	157.350	296	0.532		
	Total	159.905	299			
Control of Learning Beliefs	Between Groups	2.568	3	0.856	1.719	.163
	Within Groups	147.447	296	0.498		
	Total	150.016	299			
Self-Efficacy for Learning Performance	Between Groups	1.377	3	0.459	0.944	.420
	Within Groups	143.915	296	0.486		
	Total	145.292	299			
Test Anxiety	Between Groups	1.770	3	0.590	0.832	.477
	Within Groups	209.774	296	0.709		
	Total	211.543	299			
Student Self-Efficacy	Between Groups	0.319	3	0.106	0.845	.470
	Within Groups	37.206	296	0.126		
	Total	37.525	299			

Table 9 displays the result of the Analysis of Variance (ANOVA) conducted to examine the variance in student motivation and self-efficacy levels by age. As seen from the table, the results revealed no significant differences across age groups for intrinsic goal orientation [$F(3, 296) = 0.827, p = .480$], extrinsic goal orientation [$F(3, 296) = 1.546, p = .203$], task value [$F(3, 296) = 1.602, p = .189$], control of learning beliefs [$F(3, 296) = 1.719, p = .163$], self-efficacy for learning performance [$F(3, 296) = 0.944, p = .420$], test anxiety [$F(3, 296) = 0.832, p = .477$], and student self-efficacy [$F(3, 296) = 0.845, p = .470$]. From these results, the probability values were greater than the alpha significance level of .05, hence, there was no substantial evidence that variance exists among the motivation and self-efficacy of students when grouped according to their age group. These findings suggest that age did not significantly influence student motivation and self-efficacy levels across the examined variables, indicating a consistent pattern of motivation and self-efficacy beliefs across age groups in the sample.

Table 10 presents the results of the ANOVA conducted to determine whether there are significant differences in student motivation and self-efficacy levels based on gender. Collectively, the results indicated that there were no statistically significant differences based on the students' gender for intrinsic goal orientation [$F(2, 297) = 2.061, p = .129$], extrinsic goal orientation [$F(2, 297) = 0.322, p = .725$], task value [$F(2, 297) = 0.849, p = .429$], control of learning beliefs [$F(2, 297) = 1.160, p = .315$], self-efficacy for learning performance [$F(2, 297) = 1.356, p = .259$], test anxiety [$F(2, 297) = 1.776, p = .171$], and student self-efficacy [$F(2, 297) = 1.909, p = .150$]. The p -values of all of the latent variables were greater than the 5% alpha significance level. Therefore, it is safe to assume that there were no variances in the students' motivation and self-efficacy levels when they are grouped according to their gender. Additionally, these findings suggest that gender did not have a significant impact on student motivation and self-efficacy levels across the

examined variables, indicating a consistent pattern of motivation and self-efficacy beliefs regardless of gender within the sample.

Table 10

Variance in the Student Motivation and Student Self-Esteem Level in Terms of Gender

Variables		SS	df	MS	F	Sig.
Intrinsic Goal Orientation	Between Groups	1.801	2	0.900	2.061	.129
	Within Groups	129.773	297	0.437		
	Total	131.574	299			
Extrinsic Goal Orientation	Between Groups	0.426	2	0.213	0.322	.725
	Within Groups	196.810	297	0.663		
	Total	197.237	299			
Task Value	Between Groups	0.909	2	0.454	0.849	.429
	Within Groups	158.997	297	0.535		
	Total	159.905	299			
Control of Learning Beliefs	Between Groups	1.163	2	0.582	1.160	.315
	Within Groups	148.853	297	0.501		
	Total	150.016	299			
Self-Efficacy for Learning Performance	Between Groups	1.315	2	0.658	1.356	.259
	Within Groups	143.977	297	0.485		
	Total	145.292	299			
Test Anxiety	Between Groups	2.500	2	1.250	1.776	.171
	Within Groups	209.044	297	0.704		
	Total	211.543	299			
Student Self-Esteem	Between Groups	0.476	2	0.238	1.909	.150
	Within Groups	37.048	297	0.125		
	Total	37.525	299			

Table 11 shows the result of the statistical computation for the analysis of variance (ANOVA) to assess the differences in student motivation and self-efficacy levels across different year levels.

Table 11

Variance in the Student Motivation and Student Self-Efficacy Level in Terms of Year Level

Variables		SS	df	MS	F	Sig.
Intrinsic Goal Orientation	Between Groups	4.965	3	1.655	3.870*	.010
	Within Groups	126.609	296	0.428		
	Total	131.574	299			
Extrinsic Goal Orientation	Between Groups	3.415	3	1.138	1.738	.159
	Within Groups	193.822	296	0.655		
	Total	197.237	299			
Task Value	Between Groups	1.829	3	0.610	1.141	.333
	Within Groups	158.077	296	0.534		
	Total	159.905	299			
Control of Learning Beliefs	Between Groups	1.951	3	0.650	1.300	.257
	Within Groups	148.065	296	0.500		
	Total	150.016	299			
Self-Efficacy for Learning Performance	Between Groups	1.807	3	0.602	1.243	.294
	Within Groups	143.485	296	0.485		
	Total	145.292	299			
Test Anxiety	Between Groups	2.164	3	0.721	1.020	.384
	Within Groups	209.379	296	0.707		
	Total	211.543	299			
Student Self-Efficacy	Between Groups	0.129	3	0.043	0.340	.797
	Within Groups	37.396	296	0.126		
	Total	37.525	299			

It is interesting to note that one latent variable indicated significant difference in the intrinsic goal orientation [$F(3, 296) = 3.870, p = .010$], where students in different year levels showed varying levels of intrinsic goal orientation. This is based on the probability value which is lower than the alpha significance level of .05. On the other hand, no significant differences were found for extrinsic goal orientation [$F(3, 296) = 1.738, p = .159$], task value [$F(3, 296) = 1.141, p = .333$], control of learning beliefs [$F(3, 296) = 1.300, p = .257$], self-efficacy for learning performance [$F(3, 296) = 1.243, p = .294$], test anxiety [$F(3, 296) = 1.020, p = .384$], and student self-efficacy [$F(3, 296) = 0.340, p = .797$]. All of their p -values were higher than the 5% alpha significance level. These findings suggest that while there are differences in intrinsic goal orientation based on year level, other aspects of student motivation and self-efficacy do not significantly vary across different year levels in the sample.

Table 12

Variance in the Student Motivation and Student Self-Efficacy Level in Terms of College

Variables		SS	df	MS	F	Sig.
Intrinsic Goal Orientation	Between Groups	0.458	3	0.153	0.345	.793
	Within Groups	131.116	296	0.443		
	Total	131.574	299			
Extrinsic Goal Orientation	Between Groups	3.537	3	1.179	1.802	.147
	Within Groups	193.700	296	0.654		
	Total	197.237	299			
Task Value	Between Groups	4.101	3	1.367	2.597	.053
	Within Groups	155.805	296	0.526		
	Total	159.905	299			
Control of Learning Beliefs	Between Groups	4.899	3	1.633	3.331*	.020
	Within Groups	145.117	296	0.490		
	Total	150.016	299			
Self-Efficacy for Learning Performance	Between Groups	2.110	3	0.703	1.454	.227
	Within Groups	143.182	296	0.484		
	Total	145.292	299			
Test Anxiety	Between Groups	1.915	3	0.638	0.901	.441
	Within Groups	209.629	296	0.708		
	Total	211.543	299			
Student Self-Efficacy	Between Groups	0.271	3	0.090	0.719	.541
	Within Groups	37.253	296	0.126		
	Total	37.525	299			

Table 12 presents the statistical analysis of variance conducted to examine the variance in student motivation and self-efficacy levels across different colleges of the students. Collectively, the results indicated that there were no statistically significant differences based on college for intrinsic goal orientation [$F(3, 296) = 0.345, p = .793$], extrinsic goal orientation [$F(3, 296) = 1.802, p = .147$], task value [$F(3, 296) = 2.597, p = .053$], self-efficacy for learning performance [$F(3, 296) = 1.454, p = .227$], test anxiety [$F(3, 296) = 0.901, p = .441$], and student self-efficacy [$F(3, 296) = 0.719, p = .541$]. This inference is based on the p -values obtained which were all greater than the alpha significance level of .05. However, a significant difference was observed for control of learning beliefs [$F(3, 296) = 3.331, p = .020$], since the probability value was lower than the alpha significance level of .05. It also indicates that students from different colleges exhibit varying levels of control of learning beliefs. These findings suggest that while control of learning beliefs varies across colleges, other aspects of student motivation and self-efficacy do not differ significantly among students attending different colleges in the sample.

Table 13 shows the result of the statistical computation for the Analysis of Variance [ANOVA] conducted to investigate the variance in student motivation and self-efficacy levels across different GPA categories from the previous semester/year. As gleaned from the table, the results revealed a significant difference in control of learning beliefs [$F(6, 293) = 2.154, p = .048$] since the probability value was less than the designated alpha significance level of .05. The result also indicated that students with varying GPA levels from the previous semester or year demonstrate different levels of control of learning beliefs. However, no statistically significant differences were found for intrinsic goal orientation [$F(6, 293) = 2.005, p = .065$], extrinsic goal orientation [$F(6, 293) = 1.033, p = .404$], task value [$F(6, 293) = 1.500, p = .178$], self-efficacy for learning

Table 13

Variance in the Student Motivation and Student Self-Efficacy Level in Terms of GPA from the Previous Semester/Year

Variables		SS	df	MS	F	Sig.
Intrinsic Goal Orientation	Between Groups	5.188	6	0.865	2.005	.065
	Within Groups	126.386	293	0.431		
	Total	131.574	299			
Extrinsic Goal Orientation	Between Groups	4.084	6	0.681	1.033	.404
	Within Groups	193.153	293	0.659		
	Total	197.237	299			
Task Value	Between Groups	4.766	6	0.794	1.500	.178
	Within Groups	155.139	293	0.529		
	Total	159.905	299			
Control of Learning Beliefs	Between Groups	6.336	6	1.056	2.154*	.048
	Within Groups	143.679	293	0.490		
	Total	150.016	299			
Self-Efficacy for Learning Performance	Between Groups	4.131	6	0.689	1.429	.203
	Within Groups	141.160	293	0.482		
	Total	145.292	299			
Test Anxiety	Between Groups	1.716	6	0.286	0.399	.879
	Within Groups	209.828	293	0.716		
	Total	211.543	299			
Student Self-Efficacy	Between Groups	0.415	6	0.069	0.546	.773
	Within Groups	37.110	293	0.127		
	Total	37.525	299			

performance [$F(6, 293) = 1.429, p = .203$], test anxiety [$F(6, 293) = 0.399, p = .879$], and student self-efficacy [$F(6, 293) = 0.546, p = .773$]. This assumption was done due to the high p -value results from the computation based on the .05 alpha significance level. These findings suggest that while control of learning beliefs varies across GPA categories from the previous semester or year, other aspects of student motivation and self-efficacy do not differ significantly based on students' previous academic performance.

The correlation analysis presented in Table 14 showcases the relationship between students' motivation and self-efficacy.

Table 14

Relationship between Students' Motivation and Self-Efficacy

Student Motivation	Student's Self-Efficacy
Intrinsic Goal Orientation	Pearson Correlation
	.146*
Extrinsic Goal Orientation	Sig. (2-tailed)
	.011
Task Value	Pearson Correlation
	.282*
Control of Learning Beliefs	Sig. (2-tailed)
	.000
Self-Efficacy for Learning Performance	Pearson Correlation
	.196*
Test Anxiety	Sig. (2-tailed)
	.001
	Pearson Correlation
	.199*
	Sig. (2-tailed)
	.001
	Pearson Correlation
	.247*
	Sig. (2-tailed)
	.000
	Pearson Correlation
	.387*
	Sig. (2-tailed)
	.000

Note. * $p < .05$

The data reveals significant correlations between various aspects of student motivation and self-efficacy. Specifically, significant positive correlations were found between intrinsic goal orientation and self-efficacy ($r = .146, p = .011$), task value and self-efficacy ($r = .196, p = .001$), control of learning beliefs and self-efficacy ($r = .199, p = .001$), self-efficacy for learning performance and self-efficacy ($r = .247, p = .000$), as well as test anxiety and self-efficacy ($r = .387, p = .000$). These results suggest that there is a meaningful relationship between students' motivation levels and their self-efficacy beliefs, with stronger correlations observed for

test anxiety and self-efficacy. The significance of these correlations underscores the interconnected nature of motivation and self-efficacy in influencing students' academic performance and learning experiences.

In Table 15, a regression analysis examines the predictors of students' self-efficacy.

Table 15

Predictor for Students' Self-Efficacy

Model	Unstandardized Coefficients		Std Coefficients	<i>t</i>	Sig.
	<i>B</i>	Std. Error	Beta		
(Constant)	2.287	.126		18.192	.000
Intrinsic Goal Orientation	−0.028	.038	−.052	−0.733	.464
Extrinsic Goal Orientation	0.060	.032	.137	1.857	.064
Task Value	−0.031	.046	−.064	−0.681	.497
Control of Learning Beliefs	−0.015	.040	−.031	−0.389	.698
Self-Efficacy for Learning Performance	0.063	.040	.125	1.596	.112
Test Anxiety	0.138	.027	.328	5.104*	.000

Note. $F(6, 293) = 10.010$, $p = .000$; $R^2 = .170$; $*p < .05$

Based on the result, the test anxiety emerged as a significant positive predictor ($\beta = 0.328$, $p = 0.000$), indicating that heightened test anxiety levels were associated with increased self-efficacy. Additionally, extrinsic goal orientation showed a positive relationship with self-efficacy ($\beta = 0.137$, $p = .064$). However, it did not reach statistical significance at alpha 0.05 level. Conversely, intrinsic goal orientation ($\beta = -.052$, $p = .464$), task value ($\beta = -.064$, $p = .497$), control of learning beliefs ($\beta = -.031$, $p = .698$), and self-efficacy for learning performance ($\beta = .125$, $p = .112$) were not identified as significant predictors of self-efficacy. The overall model was statistically significant [$F(6, 293) = 10.010$, $p = .000$], explaining 17.0% of the variance in students' self-efficacy. These findings underscore the notable role of test anxiety as a key predictor of students' self-efficacy, reflecting its impact within the context of academic self-beliefs.

4. Discussion

The study included demographic characteristics that provided basic information about the sample. Most of the participants are aged between 21 and 25 years old, female, in the third-year level, studying under the College of Education, Arts, and Sciences, and have a GPA between 1.99 and 1.00. The age bracket is almost parallel to that of the study by Al-Obaydi et al. (2021), which involved participants aged 20-25 years old. In contrast, the paper by Khan et al. (2022) reported that 65% of their participants were male wherein the current study had a female-dominated sample. The level of self-esteem among the students was generally moderate in the current study. The previous study by Chen et al. (2023) aligns with the current study's findings, as they also found a moderate level of self-esteem among their college participants. However, Khan et al. (2022) revealed that their participants had an average level of self-esteem. But then, Albikawi (2023) also revealed that almost 20% of student-participant in her study had low self-esteem. It is essential to recognize that self-esteem significantly impacts the performance of university students, particularly in terms of emotional and behavioral engagement (Acosta-Gonzaga, 2023). Additionally, Gao et al. (2022) reported that the self-esteem of college students decreases monotonically over four years. In recent study by Gonzales Moreno et al. (2024), they claimed that self-esteem and life satisfaction is affected by social skills of university students. Hence, Auttama et al., (2021) concluded that a good relationship in the family can positively affect self-esteem of students.

In the case of student motivation, the study found that students were motivated across all latent variables of the scale. This result is similar to the findings of Pranawengtias (2022) and Immerz et al. (2024), which indicate that both extrinsic and intrinsic motivation contribute to students' learning in their subjects. In the study by Bureau et al. (2021), their investigation revealed that competence is the most significant predictor of self-determined motivation among students. At the same time, Howard et al. (2021) claimed that intrinsic motivation is related to student success and well-being. However, in the case of online learning, Mese and Sevilen (2021) demonstrated that students had negative perceptions and a negative impact on their motivation, primarily due to a lack of social interaction. The same context was presented by the study of Garcia-Lopez et al., (2023) wherein using gamification platforms created a negative effect of motivation to their academic performance. Ishida and Sekiyama (2024) also shared that there were six factors influencing learning motivation among students which includes, psychological values, social and environmental influences, cognitive factors, demographics, study habits, and academic background.

When the study examined the participants' self-esteem and motivation using the test of differences, in general, there was slight variance among the main variables, especially in terms of age and gender. The non-variance in gender supports the previous studies of Al-Obaydi et al. (2021) and Weber et al. (2023). However, Khan et al.'s (2022) study found that males have higher self-esteem than females. Even the study by Lin et al. (2021) claimed that male students have higher motivation scores compared to female students. The same findings were claimed in the paper of Gonzales Moreno et al. (2024), wherein they found significant differences in the students' self-esteem according to their gender and academic performance. However, in terms of year level, a significant difference was found for the intrinsic motivation. In the case of college and GPA, the computation revealed variance in the control of learning beliefs among students.

The study found a low positive association between students' self-esteem and their motivation. A previous paper by Namaziandost et al. (2023) supported the current findings, wherein they found that students with higher self-esteem are less likely to be demotivated. Another study by Vacalares et al. (2023) confirmed that self-esteem is a factor that promotes motivation and student engagement. A linear regression analysis confirmed that test anxiety is a significant predictor of self-esteem among students in higher education institutions. This finding also supports the past study by Karchner et al. (2021), wherein test anxiety was found to be a significant mediator between self-esteem and student achievement.

5. Conclusion

This study yielded some interesting findings that can contribute to the growing body of knowledge, particularly in the context of self-esteem and student motivation. To generalize the study's findings, the demographic characteristics of the respondents include being 21-25 years old, female, third-year level students studying under the College of Education, Arts, and Sciences, and having a GPA between 1.99 and 1.00. The self-esteem level of the respondents was generally moderate and collectively motivated. Inferential analysis revealed statistical differences in intrinsic motivation when respondents were grouped by their year level. On the other hand, control of learning beliefs among students yielded a significant difference in terms of college and GPA among the respondents. Additionally, the study also demonstrated a substantial relationship between self-esteem and student motivation. Lastly, test anxiety was a viable predictor of self-esteem among the students.

6. Implications

Based on the findings and conclusions of this study, several implications emerge. Educational institutions may consider developing interventions aimed at enhancing students' self-esteem to positively influence motivation, academic engagement, and overall well-being. Learning materials and instructional approaches may also be tailored to accommodate differences in control of learning beliefs across college affiliations and GPA levels, ensuring inclusivity and effectiveness in instructional delivery. Additionally, the provision of counseling services and mental health resources is recommended to address test anxiety, which was identified as a significant predictor of self-esteem. Educators are likewise encouraged to integrate motivational strategies that respond to the diverse needs and belief systems of students. Furthermore, the results of this study may inform institutional policies designed to improve student outcomes and foster positive academic experiences. Finally, future research is encouraged to further examine the complex relationship among self-esteem, student motivation, and academic performance in higher education contexts.

Declaration of interest: The author declared that there were no potential conflicts of interest.

Data availability: The data that support the findings of this study are available from the author upon reasonable request.

Ethical statement: This paper did not undergo Ethics Committee Review. However, the principal investigator observed all of the necessary ethical considerations during the process of data gathering and other essential procedures and protocols as well as the data privacy concerns of the respondents were also taken into account. The principal investigator also emphasized that informed consent was provided prior to the data gathering and the study's purpose, procedures, and their rights to withdraw at any time without consequences were reiterated. This is to protect the respondents to all kinds of threats and harm due to their voluntary participation in the said study. This study does not involve human participants, personal data, or animal subjects. Therefore, ethical approval and informed consent were not required in accordance with institutional and international research ethics guidelines.

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References

- Abrar-ul-Hassan, S., & Safdar, G. (2022). Relationship between self-esteem and problematic use of facebook among university students. *Annals of Social Sciences and Perspective*, 3(1), 199-217. <https://doi.org/10.52700/assap.v3i1.83>
- Acosta-Gonzaga, E. (2023). The effects of self-esteem and academic engagement on university students' performance. *Behavioral Sciences*, 13(4), 348. <https://doi.org/10.3390/bs13040348>
- Ahn, I., Chiu, M. M., & Patrick, H. (2021). Connecting teacher and student motivation: Student-perceived teacher need-supportive practices and student need satisfaction. *Contemporary Educational Psychology*, 64, 101950. <https://doi.org/10.1016/j.cedpsych.2021.101950>
- Al-Abyadh, M. H. A., & Abdel Azeem, H. A. H. (2022). Academic achievement: influences of university students' self-management and perceived self-efficacy. *Journal of Intelligence*, 10(3), 55. <https://doi.org/10.3390/jintelligence10030055>
- Albikawi, Z. F. (2023). Anxiety, depression, self-esteem, internet addiction and predictors of cyberbullying and cybervictimization among female nursing university students: A cross sectional study. *International Journal of Environmental Research and Public Health*, 20(5), 4293. <https://doi.org/10.3390/ijerph20054293>
- Al-Obaydi, L. H., Doncheva, J., & Nashruddin, N. (2021). EFL college students' self-esteem and its correlation to their attitudes towards inclusive education. *Bocnumanue/Vospitanie-Journal of Educational Sciences, Theory and Practice*, 16(1), 27-34. <https://www.cceol.com/search/article-detail?id=1303135>
- Augusto, W. (2022). Correlation of students' level of reading comprehension in Filipino language and self-esteem. *Journal of Education and Innovation*, 24(2), 345-359. https://so06.tci-thaijo.org/index.php/edujournal_nu/article/view/255050
- Auttama, N., Seangpraw, K., Ong-Artborirak, P., & Tonchoy, P. (2021). Factors associated with self-esteem, resilience, mental health, and psychological self-care among university students in Northern Thailand. *Journal of Multidisciplinary Healthcare*, 2021, 1213-1221. <https://doi.org/10.2147/JMDH.S308076>
- Bin Dayel, S., Al Diab, A., Abdelaziz, A., Farghaly, A., & Al Ansari, A. (2018). Validity of the motivated strategies for learning questionnaire in Saudi Arabia. *International Journal of Medical Education*, 9, 309. <https://doi.org/10.5116/ijme.5bec.81cf>
- Bureau, J. S., Howard, J. L., Chong, J. X., & Guay, F. (2022). Pathways to student motivation: A meta-analysis of antecedents of autonomous and controlled motivations. *Review of educational research*, 92(1), 46-72. <https://doi.org/10.3102/00346543211042426>
- Chang, Y. C., & Tsai, Y. T. (2022). The effect of university students' emotional intelligence, learning motivation, and self-efficacy on their academic achievement—Online English courses. *Frontiers in Psychology*, 13, 818929. <https://doi.org/10.3389/fpsyg.2022.818929>
- Chen, C., Shen, Y., Zhu, Y., Xiao, F., Zhang, J., & Ni, J. (2023). The effect of academic adaptability on learning burnout among college students: the mediating effect of self-esteem and the moderating effect of self-efficacy. *Psychology Research and Behavior Management*, 2023, 1615-1629. <https://doi.org/10.2147/PRBM.S408591>
- Çiçek, İ. (2021). Mediating role of self-esteem in the association between loneliness and psychological and subjective well-being in university students. *International Journal of Contemporary Educational Research*, 8(2), 83-97. <https://doi.org/10.33200/ijcer.817660>
- Dancot, J., Pétré, B., Dardenne, N., Donneau, A. F., Detroz, P., & Guillaume, M. (2021). Exploring the relationship between first-year nursing student self-esteem and dropout: A cohort study. *Journal of Advanced Nursing*, 77(6), 2748-2760. <https://doi.org/10.1111/jan.14806>
- Devi, B., Lepcha, N., & Basnet, S. (2022). Application of correlational research design in nursing and medical research. *Journal of Xi'an Shiyou University, Natural Sciences Edition*, 65(11), 60-69. <https://doi.org/10.17605/OSF.IO/YRZ68>
- Gao, W., Luo, Y., Cao, X., & Liu, X. (2022). Gender differences in the relationship between self-esteem and depression among college students: a cross-lagged study from China. *Journal of Research in Personality*, 97, 104202. <https://doi.org/10.1016/j.jrp.2022.104202>
- García-López, I. M., Acosta-Gonzaga, E., & Ruiz-Ledesma, E. F. (2023). Investigating the impact of gamification on student motivation, engagement, and performance. *Education Sciences*, 13(8), 813. <https://doi.org/10.3390/educsci13080813>

- González Moreno, A., Simões, C., Santos, A. C., & Molero Jurado, M. D. M. (2024). Creative self-efficacy and social skills in a portuguese sample of university students: links with self-esteem, academic achievement and life satisfaction. *European Journal of Investigation in Health, Psychology and Education*, 14(12), 2966-2977. <https://doi.org/10.3390/ejihpe14120195>
- Howard, J. L., Bureau, J., Guay, F., Chong, J. X. Y., & Ryan, R. M. (2021). Student motivation and associated outcomes: a meta-analysis from self-determination theory. *Perspectives on Psychological Science*, 16(6), 1300-1323. <https://doi.org/10.1177/1745691620966789>
- Huang, L., Hur, J. W., & Thomas, C. (2025). An investigation of students' motivation, self-esteem, and their academic achievement/retention for financially disadvantaged computer science undergraduate students. *International Journal of Multidisciplinary and Educational Research*, 8(1), 107 - 115. <https://iigdpublishers.com/article/520>
- Immerz, A., Nusseck, M., Hohagen, J., & Spahn, C. (2024). Student motivation to study music and sport—a comparison between study subjects and study programs on intrinsic and extrinsic motivational aspects. *Frontiers in Psychology*, 15, 1393339. <https://doi.org/10.3389/fpsyg.2024.1393339>
- Ishida, A., & Sekiyama, T. (2024, October). Variables influencing students' learning motivation: Critical literature review. *Frontiers in Education*, 9, 1445011. <https://doi.org/10.3389/feduc.2024.1445011>
- Kassa, B. A., Ayele, M. A., & Argaw, A. S. (2025). The impact of GeoGebra-assisted problem solving based on variation theory on students' motivation in geometry. *Journal of Pedagogical Sociology and Psychology*, 7(4), 44-61. <https://doi.org/10.33902/jpsp.202534058>
- Kärchner, H., Schöne, C., & Schwinger, M. (2021). Beyond the level of self-esteem: exploring the interplay of level, stability, and contingency of self-esteem, mediating factors, and academic achievement. *Social Psychology of Education*, 24(2), 319-341. <https://doi.org/10.1007/s11218-021-09610-5>
- Khan, S., Anwar, N., Khan, I., Ullah, S., Suliman, M., & Sultan, A. (2022). Self-Esteem and its impact on academic performance among undergraduate nursing students Of Khyber Pukhtankhwa Pakistan; A correlational study: self-esteem and its impact on academic performance. *Pakistan Journal of Health Sciences*, 3(5), 204-207. <https://doi.org/10.54393/pjhs.v3i05.232>
- Lin, P. Y., Chai, C. S., Jong, M. S. Y., Dai, Y., Guo, Y., & Qin, J. (2021). Modeling the structural relationship among primary students' motivation to learn artificial intelligence. *Computers and Education: Artificial Intelligence*, 2, 100006. <https://doi.org/10.1016/j.caeai.2020.100006>
- Liu, X., Cao, X., & Gao, W. (2022). Does low self-esteem predict anxiety among Chinese college students?. *Psychology Research and Behavior Management*, 2022, 1481-1487. <https://doi.org/10.2147/PRBM.S361807>
- Luciano, R. G., & Olipas, C. N. P. (2021). An inquiry on the self-esteem and self-efficacy level of information technology students. *International Journal of Advanced Engineering, Management and Science*, 7(9), 13-17. <https://eric.ed.gov/?id=ED622635>
- Mahdavi, P., Valibeygi, A., Moradi, M., & Sadeghi, S. (2023). Relationship between achievement motivation, mental health, and academic success in university students. *Community Health Equity Research & Policy*, 43(3), 311-317. <https://doi.org/10.1177/0272684X211025932>
- Meşe, E., & Sevilen, Ç. (2021). Factors influencing EFL students' motivation in online learning: A qualitative case study. *Journal of Educational Technology and Online Learning*, 4(1), 11-22. <https://doi.org/10.31681/jetol.817680>
- Namaziandost, E., Heydarnejad, T., & Azizi, Z. (2023). To be a language learner or not to be? The interplay among academic resilience, critical thinking, academic emotion regulation, academic self-esteem, and academic demotivation. *Current Psychology*, 42(20), 17147-17162. <https://doi.org/10.1007/s12144-023-04676-0>
- Oducado, R. M. (2021). Academic performance and the role of self-directed learning, self-esteem, and grit among nursing students. *Jendela Nursing Journal*, 5(1), 1-9. <https://doi.org/10.31983/jnj.v5i1.6634>
- Paat, F. M. G. (2023). School motivation and learning strategies and college readiness of senior high school graduates in the Philippines. *Journal for Educators, Teachers and Trainers*, 14(3), 1-8. <https://doi.org/10.47750/jett.2023.14.03.001>
- Pedler, M. L., Willis, R., & Nieuwoudt, J. E. (2022). A sense of belonging at university: Student retention, motivation and enjoyment. *Journal of Further and Higher Education*, 46(3), 397-408. <https://doi.org/10.1080/0309877X.2021.1955844>
- Pranawengtias, W. (2022). Undergraduate students' motivation on English language learning at Universitas Teknokrat Indonesia. *Journal of English Language Teaching and Learning*, 3(2), 27-32. <http://dx.doi.org/10.33365/jeltl.v3i2.1956>

- Rosenberg, M. (1965). *Rosenberg Self-Esteem Scale (RSES)*. APA PsycTests. <https://doi.org/10.1037/t01038-000>
- Saleh Moustafa Saleh, M., Abdel-Latif Abdel-Sattar, S., Abdelgawad Elkalashy, R., Adel Amer, N., & Elsaid Elsabahy, H. (2021). Nursing students engagement and motivational education environment as a requirement to improve student's self-esteem. *Egyptian Journal of Health Care*, 12(2), 801–815. <https://doi.org/10.21608/ejhc.2021.171355>
- Sánchez-Bolívar, L., & Martínez-Martínez, A. (2022). Factors related to university students' motivation and instruments for its evaluation: A systematic review. *Revista Electrónica Educare*, 26(2), 484–505. <http://dx.doi.org/10.15359/ree.26-2.26>
- Sison, E., Doloque, E., Santor, K., Rayla, N., Capagalan, S., & Tus, J. (2021). Amidst online learning: The self-efficacy and academic motivation of the college students from the public higher education institutions in the Philippines. *International Journal of Advance Research and Innovative Ideas In Education*, 7(3) 3015 – 3030. <https://www.researchgate.net/publication/352694604>
- Suguis, J. E., & Belleza, S. S. (2022). Student engagement as influenced by physical activity and student motivation among college students. *International Journal of Sports Science and Physical Education*, 7(1), 28–40. <https://doi.org/10.11648/j.ijsspe.20220701.15>
- Suryani, L., & Widhiyanto, W. (2023). Students' motivation in learning English in Indonesia: A critical review. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 11(2), 1611–1619. <https://doi.org/10.24256/ideas.v11i2.4392>
- Vacalares, S. T., Ocliaman, J., Maglangit, J. M., & Ledesma, F. G. R. (2023). The self-esteem and academic performance in purposive communication class at the tertiary level. *International Journal of Research and Review*, 10(6), 62–69. <https://doi.org/10.52403/ijrr.20230609>
- Vagka, E., Gnardellis, C., Lagiou, A., & Notara, V. (2023). Nomophobia and self-esteem: a cross-sectional study in Greek university students. *International Journal of Environmental Research and Public Health*, 20(4), 2929. <https://doi.org/10.3390/ijerph20042929>
- van Aalst, D. A., Huitsing, G., Mainhard, T., Cillessen, A. H., & Veenstra, R. (2021). Testing how teachers' self-efficacy and student-teacher relationships moderate the association between bullying, victimization, and student self-esteem. *European Journal of Developmental Psychology*, 18(6), 928–947. <https://doi.org/10.1080/17405629.2021.1912728>
- Wang, Y., Huebner, E. S., & Tian, L. (2021). Parent-child cohesion, self-esteem, and academic achievement: The longitudinal relations among elementary school students. *Learning and Instruction*, 73, 101467. <https://doi.org/10.1016/j.learninstruc.2021.101467>
- Weber, S. R., Winkelmann, Z. K., Monsma, E. V., Arent, S. M., & Torres-McGehee, T. M. (2023). An examination of depression, anxiety, and self-esteem in collegiate student-athletes. *International Journal of Environmental Research and Public Health*, 20(2), 1211. <https://doi.org/10.3390/ijerph20021211>
- Yap, C. C., Mohamad Som, R. B., Sum, X. Y., Tan, S. A., & Yee, K. W. (2022). Association between self-esteem and happiness among adolescents in Malaysia: The mediating role of motivation. *Psychological Reports*, 125(3), 1348–1362. <https://doi.org/10.1177/00332941211005124>
- Yu, W., Qian, Y., Abbey, C., Wang, H., Rozelle, S., Stoffel, L. A., & Dai, C. (2022). The role of self-esteem in the academic performance of rural students in China. *International Journal of Environmental Research and Public Health*, 19(20), 13317. <https://doi.org/10.3390/ijerph192013317>
- Zainuddin, N. A., Ravichandran, V., & Md Yusof, Z. (2022). The influence of social media on university students' self-esteem. *Pertanika Journal of Social Sciences & Humanities*, 30(3), 1037–1048. <https://doi.org/10.47836/pjssh.30.3.06>