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Understanding student motivation towards achieving goals among college students: an exploratory research

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ABSTRACT

Motivation could be the greatest currency to succeed in a student's academic life. This study analyzed academic motivation after students were affected by the pandemic or after their two-year hiatus from active academic face-to-face activities. Moreover, this research examined whether students have influenced academic motivation in terms of gender and degree of program. Using a descriptive-sequential research design, 652 college students at St. Dominic College of Asia, Cavite, Philippines, took part in this study. A survey questionnaire adapted from the academic motivation scale (AMS-C 28) college version was used to determine the level of academic motivation of students. Open-ended questions were provided to the students relating to what motivates them to study and to which students are motivated through techniques during online learning. Findings revealed that the degree of program has a positive effect on student motivation, whereas gender does not significantly associate with motivation. Students showed appreciation for a greater convenience to study because of the technology; however, lack of interaction makes it more challenging for some. Helping students as teachers to keep track of their tasks can make them become great learners and succeed with confidence and determination through their personal and scholarly lives.

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1. INTRODUCTION

Motivation could be the greatest currency to succeed in a student's academic life. It is considered a factor that one attains success in the student's life considering the four or more years of stay in college life. This factor enables one to think well, act appropriately, and engage meaningfully. In educational psychology, motivation represents one of the psychological theories that is most extensively investigated [1]. The phrase originates in the Latin word "*movere*", which means "to move", since motivation gives people to act on its purpose [2]. Students, particularly in higher education, make a strong sense of motivation by exploring new and challenging tasks that might be applicable in their own lives [3]. This requires the students to commit themselves to see what they have learned through the real world and what they could achieve to the highest potential and create their success. Motivation has yielded a more positive behavior towards students, including their greater well-being.

High-quality autonomous, extrinsic incentive types that are defined by voluntary participation in activities are integrated and identified regulations [2]. The most self-governing type of extrinsic incentive is integrated regulation. Individuals with integrated regulation can describe the activity's worth and find it to be consistent with their interests and basic values. When an action is defined as regulated, people experience high levels of volition because they personally identify with or endorse its worth. Extrinsic regulation involves actions that are influenced by outside rewards or punishments, such as praises or criticisms from parents or teachers. Meanwhile, introjected regulation is when someone partly accepts these external influences from inside, and their behavior is driven by feelings of needing to feel good about themselves, avoid feeling bad, or meet others' expectations [2].

While motivation can effectively promote student learning, it may be challenging that one can require special preparation for those students who have varied interests to connect them with the subject matter. Intrinsic and extrinsic motivators may distract students from learning the course content; therefore, educators should come up with certain appropriate rewards or punishments to the learners. Although self-regulation skills and motivation can be significantly affected by the higher education students, some of them who chose their courses that were not expected of their abilities may even lose their motivation and interest to study more, especially those who are enrolled in distance education [4]. In addition, most college students were disengaged in flexible learning, believing that they felt a sense of disconnection from their instructors and peers, making them more frustrated [5]. Activities, particularly in distance education, may not encourage the motivation and learning performance of students if those are not well-enhanced in classroom settings [6].

Academic motivation scale (AMS) is used to determine the motivation level of students, particularly in higher education [7], [8]. By using this scale, teachers should give active feedback for students' activities to be recognized in achieving the intended goals through different study modalities [9]. However, the AMS differs across cultures based on studies by different researchers, showing that human motivation is influenced by various cultural factors, which can play an important role in how people value learning and achieving success [10]. Gender and cultural variations have influenced academic success from the students, particularly in creating a sense of conscientiousness and intelligence or openness [11].

Several studies were made to assess the academic motivation of the students and how it influenced their academic performance. A study shows how academic motivation and self-efficacy affect academic achievement among college students in Indonesia during online learning; it found that these factors have a positive influence on students' values and expectations [12]. A university in the United Arab Emirates showed that no significant differences were shown in academic achievement when analyzed by gender variables but had a significant difference in metacognitive awareness, whereas intrinsic and extrinsic motivations are independent with one another and females have higher compatibility in both motivations than males [13]. Researchers in Iran also conducted a study on promoting academic motivation towards students who study in synchronous online classes and in a flipped-jigsaw classroom and discovered that the combination of these two methods was more successful in improving the academic motivation of students compared to the synchronous online class [14]. In a cross-sectional study conducted among three countries: Philippines, Saudi Arabia, and Thailand, students showed readiness for self-directed learning which positively affected their intrinsic motivation, making them more highly proactive learners [15]. In addition, achievement became the most motivating factor for business management students, which was positively correlated with high academic performance, whereas this result implies that students have developed their assertiveness in their academic and social settings [16].

Students' learning was viewed as 'altered' to suit the normal transition after the COVID-19 pandemic. Students have been introduced to various technologies in their learning and teaching activities. However, there had been much greater exposure when the pandemic set in. The majority of their learning and interactions with teachers and with students are mostly using different remote technologies. Even during the transition from pandemic to normalcy, students have observed more interaction with the technologies.

The study identified factors that could motivate the students to achieve their goals. In this way, students would gain self-assurance and self-determination from teachers who are seen as caring, encouraging, and helpful. Studies about academic motivation should be given attention, especially since students experienced the least interaction from classmates and peers due to the pandemic. As the level of academic motivation was not conducted yet at St. Dominic College of Asia in the Philippines prior to this study, it aims to find out if there are other motivating factors, extrinsic or intrinsic, that could have added to the existing current motivating factors of students to learn. The results can be useful in designing a student success program that could be suitable for college students, especially in this higher education institution. This study explored views on what might encourage students in their studies in terms of gender and chosen degree. The study also intends to answer the following questions:

i) Does gender influence academic motivation?
ii) Is there a significant difference when their views are categorized according to the choice of degree program?

2. METHOD

2.1. Design and participants

The survey used a mixed-methods design using the descriptive-sequential approach [17]. In the descriptive-sequential method, the quantitative data and its analysis were presented first, then the qualitative data. The results from both types of data were combined to draw the final conclusions of the study. Data from the quantitative survey were analyzed based on two research questions: academic motivation of the students according to gender and the degree of program they are enrolled in.

The researchers used simple random sampling, as this study is directed towards students from higher education. Simple random sampling is a method where a list of sample participants or items is created, and researchers use a random number table to choose individuals by chance [18]. A total of 652 students from different programs at St. Dominic College of Asia answered the questionnaires. Participants must be enrolled from college at this higher education institution, must be at least 18 years of age upon enrollment, and are residing in the Philippines. The researchers excluded high school students, particularly from the senior high school department, who take on different tracks prior to their entry to college.

2.2. Instruments

The instrument used to gather the responses was a survey questionnaire, which consisted of two parts: one is about the AMS-C 28 college version, which was made by previous studies [19]–[21], and the other one is a written interview. The researchers distributed a Google Forms survey questionnaire that was conducted from October to December 2023 through iClass, an online learning platform specifically made for St. Dominic College of Asia. Questionnaires were also disseminated to the email addresses of students, including Facebook Messenger accounts.

The first part, which is the AMS, allows to evaluate seven different types of constructs: i) intrinsic motivation, which is directed on three purposes: to know, toward accomplishment, and to experience stimulation; ii) extrinsic motivation, which identifies three types: identified, introjected, and external regulation; and iii) amotivation, which refers to a lack of interest to act on something [22]. It has a total of 28 items and seven scales, with four items per subscale and a 5-point rating scale. Through this scale, the interpretation of the scores is: 1=very low, 2=low, 3=fair, 4=high, and 5=very high. In this phase of study, the data collected were analyzed to answer the two research questions about their views on motivation when grouped according to gender and the choice of degree program.

The second part is composed of two open-ended questions relating to what motivates them to study after the pandemic, and the other question is about the degree to which students are motivated by the ways learning was delivered due to the pandemic. The aim of this instrument is to identify if some certain factors could motivate the students to study harder aside from validating their quantitative responses. A consent form was provided to the students through Google Forms to participate voluntarily in the research. Researchers made sure that the study does not contain any harm or threat to the participants involved, maintaining the ethical standards throughout the research process.

2.3. Statistical analysis

The data was gathered and analyzed through the use of a Microsoft Excel spreadsheet and was further tested through IBM's SPSS statistics version 28 software using descriptive statistics (frequency and percentage distribution, weighted mean, standard deviation), Levene's test for equality of variances (F-test and t-test), and thematic analysis. Descriptive statistics was used to show how motivated college students are, focusing on the means and standard deviations that vary for each statement. The Levene's test was also used to check if the differences in variances between groups are statistically significant. The variables gender and degree of program were evaluated at the 0.05 level of significance to determine if they are correlated with the academic motivation of the students. Meanwhile, thematic analysis was used to determine the patterns among qualitative responses of students through given data. These themes could analyze if the students' views could positively or negatively affect such kind of motivation in the classrooms.

3. RESULTS

Table 1 shows the level of academic motivation of students according to the AMS-C 28 college version. Based on the table, most students indicated relatively high academic motivation, both intrinsically and extrinsically. As shown on the findings, both intrinsic and extrinsic motivations showed high scores on the following scales: to know (mean=3.67), toward accomplishment (mean=3.54), to experience stimulation (mean=3.44), identified regulation (mean=3.72), introjected regulation (mean=3.60), and external regulation (mean=3.65). Results also showed that some students were fairly a motivated (mean=2.71), implying that they could not understand what they do during school hours.

People who are intrinsically motivated participate during tasks because they find them enjoyable or fascinating, while those who are extrinsically motivated participate in activities for other reasons [2]. In a similar study, the motivation to learn as well as their self-belief in learning may have a significant impact on students, especially when they enter their first year of higher education [23]. This shows that motivation is affected by the goals to which learners create their own experiences that they value for themselves and that support their sense of control and autonomy from the learning environment to which they belong.

Table 1. Level of academic motivation of students

Motivation	Mean	Interpretation
Intrinsic motivation–to know	3.67	High
Intrinsic motivation–toward accomplishment	3.54	High
Intrinsic motivation–to experience stimulation	3.44	High
Extrinsic motivation–identified	3.72	High
Extrinsic motivation–introjected	3.60	High
Extrinsic motivation–external regulation	3.65	High
Amotivation	2.71	Fair

Legend: 1.00-1.79=very low, 1.80-2.59=low, 2.60-3.39=fair, 3.40-4.19=high, 4.20-5.00=very high.

Table 2 displays the results of a test to see whether students' academic motivation differed by gender. Findings revealed that there was no gender-specific differences in the students' motivation for academic work. This is verified by the calculated t-value, which indicates no significant differences when evaluated at the 0.05 level of significance (t=-0.287, p-value=0.775). The results showed that there were no significant differences in academic motivation scores when correlated with gender. However, it was found that females had higher average academic scores than males, and males had higher academic motivation scores [24]. Additionally, this finding also suggests that the male respondents' incentive for academic success is the same as that of female respondents.

Table 2. Test of difference on academic motivation of students according to gender

Academic motivation	Levene's test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference Lower	Upper
Equal variances assumed	1.016	0.314	-0.279	650	0.780	-0.768	2.751	-6.171	4.634
Equal variances not assumed			-.0287	254.748	0.775	-0.768	2.682	-6.050	4.513

Table 3 shows the test of the difference in academic motivation of students based on the types of programs enrolled. The t-test statistic using the SPSS application was used to assess the variation in the students' academic motivation. The outcome showed that board and non-board programs have different effects on students' academic motivations. The computed t-statistics result (t=3.491, p-value=0.001) resulted in a significant difference at the 0.05 alpha level of significance. This further suggests that students in board programs have dramatically different academic motivation from those in non-board programs.

Table 3. Test of difference on academic motivation of students based on the types of programs enrolled

Academic motivation	Levene's test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference Lower	Upper
Equal variances assumed	4.109	0.043	3.738	650	0.000	14.928	3.994	7.086	22.770
Equal variances not assumed			3.491	68.129	0.001	14.928	4.277	6.394	23.461

The results imply that gender has no effect on the academic motivation of the students, which can be viewed as intrinsic in nature, while the choice of degree program is extrinsically motivated. This implies that the choice in studying degree programs has affected the student's academic motivation more than gender.

While intrinsic and extrinsic motivations are independent of each other, both can have a synergetic influence and have a positive effect on motivation [25]. In this case, both intrinsic and extrinsic motivations contributed in a large part to the high motivation of the students to learn. Students' actions and activities are strongly affected by the synergistic effect of the two types of motivation, although triggered by individual motives and needs.

Qualitatively, the themes that emerged from the thematic analysis of the question about what or who motivated to learn, or study are family as a relational motivator, supportive friends, and self-goals to become independent, financially or by oneself. This result corresponds with the study of Colby *et al*. [26], as some students were influenced by their parents to study harder, while others claimed that they could be happier with their goals when living independently. Motivation has a long-lasting impact for students when they desire to impress those people who are involved, such as parents, teachers, or friends, or to increase their interest in academics. Thus, it could help students to have confidence in their own skills to do it and patience to solve such real-world problems.

The themes that emerged about the remote and/or hybrid delivery of the lessons consisted of two lenses: positive and negative. Themes from the positive aspect include that of greater convenience to study because of the technology, and students can still study while doing a part-time job; the negative themes include that of less interaction with peers, less creativity and innovation due to a lack of interaction, a more challenging experience when a person gets to listen personally from the professors, and less motivation due to boredom of being alone. These qualitative findings complement some previous studies [27], [28], which mentioned positive and negative learning implications of remote or hybrid forms of learning delivery.

Themes emerged from the study can be associated with what Urhahne and Wijnia [2] mentioned in their study: volitional participation in activities is one of the characteristics of extrinsic motivation. While students with identified regulation determine with or personally support the significance of the activity (e.g., accomplishing schoolwork for the mastery of subject content), they also encounter high levels of intention and possibly commitment and focus through group dynamics [29]. Students who have combined regulations understand why the activity is important and relate to it because it matches their personal values and interests.

4. DISCUSSION

This study analyzed the student academic motivation after students were affected by the pandemic or after their 2-year hiatus from academic face-to-face activities with their teachers and co-students. Quantitatively, the findings demonstrate that most college students have very high academic motivation, either intrinsically or extrinsically. A similar study found that using flipped classroom instruction along with hybrid teaching methods can boost students' self-directed learning skills, leading to greater satisfaction and more motivation [30]. Another study said that students had a very satisfactory rating with regards to their learning and that they were highly motivated, with social, cognitive, and teaching presence helping them to cope well in their activities [31]. In contrast, some students tended to have lower motivation in attending university, as it showed that grades could result in anxiety, a sense of hopelessness, social comparison, and increase of academic pressure or fear of failure [32], [33]. This could imply that some challenges may be negative towards their academic progress.

The second finding showed that the gender of the students does not affect or demonstrate significant differences in the extent of the student's academic motivation. There were no significant differences in terms of gender when correlated with academic achievement. Students' academic performance and achievement depended mostly on the metacognitive strategies they used, especially with intrinsic motivation. It also had a similar result between male and female students when motivation scores were evaluated [34], [35], which implied that gender did not influence academic motivation at all. However, gender has a significant difference in the confidence dimension when they were analyzed separately in relation to academic motivation especially in using virtual reality in classrooms [36]. While they have significant differences regarding confidence dimension, females have higher dimensions in other aspects such as attention, relevance, and satisfaction compared to males without any relationships in terms of academic motivation.

Findings indicated that there is a significant difference in the academic motivation when the non-board degree programs are compared with the board degree programs accredited by the Professional Regulation Commission. Although there are limited studies of academic motivation in connection with the programs they have chosen, higher education institutions should help the teachers to share innovative assessment practices in assuring students to increase their skills needed in the technology-driven industry [37]. In this way, motivating students in different courses may help them in making growth opportunities in the future.

However, the research question remains open whether the choice of degree of programs is a factor that affects student academic motivation since quantitative data indicates a significant difference while qualitative data showed the similarity in respective patterns of views. Most students have become goal

oriented as they integrated their discussions through different professions, which calls for developers to make practical and marketable courses aligned to their societal needs [38]. More research is needed to connect the qualitative and quantitative findings of student academic motivation to foster an extensive understanding of these motivation constructs. In addition, higher education institutions such as St. Dominic College of Asia should set new goals to assist the students in enhancing their self-esteem and in creating a sense of support towards others regarding the importance of learning activities.

5. CONCLUSION

Motivation as a factor creates varied challenges among students in keeping them engaged; however, it allows them to think of something new that will foster positive relationships with other people and acknowledge their success that will continue them to strive forward through the clearly defined goals and expectations in the learning environment. The study showed that college students have a high level of motivation, which advances their expectations through success and develops their sense of responsibility and self-efficacy in the learning environment. Results also discovered that gender has no significant effect on the students' academic achievement; on the other hand, the choice of enrolling in different programs has a significant difference as to how they are highly motivated. Since this study was conducted in a remote delivery, it has been found that although students have become more flexible in understanding through different courses, some of them observed difficulties in focusing to learn during online classes.

As teachers, helping students to keep track of their tasks can make them become great learners and succeed with confidence and determination through their personal and scholarly lives. Educators should discuss graphic organizers that would shape the students to plan on their clear goals and expectations and to reflect on what makes these tasks fulfilling to them. In this way, this practice will also make it easier for them to promote active learning by means of communicating clear expectations as well as using rewards and punishments that can be effective both inside and outside the classrooms.

This study focused on the college students and was only conducted in a higher education institution in Cavite. It is recommended that future researchers should conduct a research study of a similar topic with other different colleges and universities to compare the level of academic motivation of students and their significance. Further studies related to the topic, including high school students, could be considered and implemented to determine the factors that may affect their academic motivation and self-esteem. The insights of this research study could be beneficial to students and teachers in higher education.

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C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest.

DATA AVAILABILITY

The data that supports the results of this study can be requested from the corresponding author, [NWB].

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