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The Relative Contribution of Achievement Motivation and Some Variables in Predicting the Attitudes of Applied College Students Towards Curriculum Courses

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Abstract

The academic achievement efficiency of university students is considered one of the most important learning outcomes that universities strive to improve and seek ways to enrich and develop. The study aimed to reveal the relationship between the attitudes of applied college students towards the curriculum courses, their motivation to learn them, and the possibility of predicting their attitudes towards the curriculum courses considering variables such as gender, academic achievement level, and specialization track. The study also aimed to reveal the possibility of predicting students' achievement motivation considering their attitudes toward academic courses. The study used a descriptive method. Both the Students' Attitudes Toward Academic Programs Scale, prepared by the researchers, and the Achievement Motivation Scale, prepared by Hermans (1970), were applied. The study sample consisted of 192 students from the Applied College (56M., 136F.). The main findings of the study concluded that there is a positive relationship between the attitude towards academic courses and achievement motivation. There are no statistically significant differences between males and females in their attitude towards the courses or their motivation for achievement. There are differences between specializations in attitudes towards courses and achievement motivation. There is a significant effect of achievement motivation on attitudes towards academic courses, and there is no effect on attitudes attributed to variables such as gender, specialization, academic level, and cumulative GPA. The study recommended improving the educational environment and enhancing students' motivation towards learning and working on providing psychological and educational support to students.

Keywords: Achievement Motivation, Attitudes, Applied College Curriculum Courses.

Introduction

Attitudes are non-cognitive aspects related to the learner's needs, desires, and emotions, and they influence their psychological motivations. They also contribute to their professional and academic success, and based on them, behavior can be predicted positively or negatively. It is a state of psychological readiness or preparedness in which experience is organized and has a dynamic impact on the way the learner responds to all subjects and situations that provoke this

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response (Adegboyega, 2018). Attitudes hold a prominent place in modern education because developing them is a goal for university students. This is due to their significant role in shaping behavior and building character according to academic stage requirements. Understanding students' attitudes toward what they study provides a better understanding, as the student adopts the role of a discoverer when their behavior is directed by inclination or desire (Khalifa, & Mahmoud, 2003).

The academic departments prepare curricula according to quality standards, which include diverse and comprehensive courses. These curricula are the primary means of guiding and building students' knowledge and skills. They are the main sources of knowledge and the systematic method of transferring it to students according to different specializations. The level of satisfaction students have with the curricula offered shapes their attitudes towards them. The courses distributed across the academic plans are key determinants of students' future professional orientations after graduation from university. Therefore, studying attitudes toward teaching courses has become an urgent necessity. A student's love for a course, their conviction in it, and their possession of positive attitudes toward it may be related to many variables, including their academic achievement. Studying students' attitudes toward the curriculum is one of the factors that contribute to their success (Ahmed & Yaqoub, 2023).

Three components shape students' attitudes towards academic courses: cognitive, affective, and behavioral. The cognitive component refers to the beliefs or convictions that the learner holds about the concepts or characteristics associated with the subject of the attitude (Fatima & Hosny, 2014). It is accompanied by an emotional response and a valued perspective towards the subject of the attitude. Belief alone does not constitute an attitude without being coupled with an emotional charge of acceptance or rejection. When emotions shift, learners adapt their behavior to match their beliefs and desires. The reality of students indicates that they may have high positive attitudes towards a certain subject, but their behavior does not align with their attitude. This contradiction may be due to the absence of consistency between the accepted individual standards of behavior and each person's attitude (Park, 2009). Students' attitudes towards a particular course may affect their learning of the knowledge and skills of that course, reflecting their level of interest and motivation towards it. The positive or negative attitudes that students may hold towards the courses in their study plans can be attributed to several reasons, including the nature of these courses, the level of ease or difficulty of their content, the strategies and methods used by teachers to present them in the classroom, and the degree of their relevance to the students' specialization. The students' attitudes towards the courses are related to their academic achievement in them and their progress in acquiring their content. The attitudes that a learner holds directly affect their behavior and guide and regulate their interactions with others. Attitudes facilitate the student's responses in various learning situations (Al-Samadi & Ma'abra, 2006).

Students' motivation towards certain courses is reflected in their attitudes towards them, as their motivation represents the energy, they use to overcome the difficulties and challenges they encounter while acquiring the knowledge and skills of these courses. It is also a means of achieving their goals. The students' desire for excellent performance and achieving success is one of the fundamental components driving their behavior at the academic and skill levels. Students' motivations towards specific courses are contingent upon their attitudes towards them, whether negative or positive (Al-Zghoul, 2004; Vaughan, 2002; Kumar et al., 2018).

In light of the varying attitudes of applied college students towards studying some courses in

their academic plans, according to a set of variables including gender, academic achievement level, the nature and content of these courses, and their proximity or distance from other components of the program, the study problem is determined by the following questions: (1) What is the nature of the correlation between the attitude towards academic courses and the motivation for achievement? (2) What is the nature of the differences between male and female students in their attitudes towards courses and achievement motivation? (3) Do attitudes towards courses and motivation for achievement differ by major? (4) To what extent do certain variables contribute to predicting the attitudes of male and female students in the applied college toward some courses in the curricula and their motivation to learn them?

Study objectives are to reveal the relationship between the attitudes of male and female students at the Applied College toward some courses in the study plans and their motivation to learn them. Reveal the possibility of predicting the attitudes of male and female students at the Applied College towards some courses in the study plans, considering variables (gender, academic achievement level, and relation to the specialization path). Reveal the possibility of predicting achievement motivation among students of the applied college considering their attitudes toward academic courses.

Significance of the study: The results of this study may help teachers pay more attention to students' habits and motivation to succeed in different educational settings, and to create course plans that fit the nature of the subjects and the time needed for studying, while also helping to guide their learning goals.

The current study provides a theoretical framework that can benefit academic excellence program planners in understanding the variables that influence university students' attitudes toward studying certain courses in the curriculum, with the aim of encouraging their learning and improving their academic performance. (Altan et al., 2019) think that many schools that give educational accreditation focus on how much the school cares about students' readiness, attitudes, and interests, as well as how these relate to learning theories and affect smart behaviors in teachers during teaching; this will help both students and teachers. Helping those responsible for building the curricula to understand the nature of the relationship between university students' attitudes towards certain courses in the curricula and their motivation to learn them.

Study Terms

Directions: Learned and relatively stable affective predispositions play a role in determining an individual's feelings and behavior toward certain subjects in terms of their preference or lack of preference (Ismail, 1990). Attitudes represent an emotional state underlying a person's opinion or belief towards a specific field of study or course, in terms of their rejection or acceptance of it, and the degree of this rejection or acceptance (Hasab-Alnabi, 2013). Researchers in this study define it as the viewpoint held by the university student, positively or negatively, towards certain courses in the curriculum, measured by the degree recorded in their responses on the used attitude scale.

Motivation of Achievement: Moussa (1982) defines it as the desire to perform well and achieve success, a self-directed goal that activates and directs behavior. It is considered one of the important components of success, positively related to independence and self-confidence, and can be experimentally developed."

Khalifa (2000 a) defines it as the individual's readiness to take responsibility and strive for excellence; to achieve specific goals and persist in overcoming obstacles and problems they face,

and to feel the importance of time and plan for the future.

Researchers in this study define it operationally in this study as the individual's readiness to perform at their best in various life situations that require positive effort to achieve success, measured by the score the university student receives on the achievement motivation scale.

Literature Review

Attitudes among university students constitute a non-cognitive aspect of personality, and they are linked to their needs, desires, and emotions, influencing their psychological motivations. They effectively contribute to professional and academic success. We can predict behavior negatively or positively based on attitudes. Allport (1954) defines attitudes as a state of psychological readiness or preparedness that organizes experience and has a dynamic effect on the way individuals respond to stimuli and items that provoke their responses. (Vaughan, 2002) defines attitudes as the tendency to think or act negatively or positively toward people or things. Al-Waqfi (2003) defines attitudes as relatively stable, emotionally charged acquired tendencies that influence learners' motivation and direct their behavior. Attitudes are relative inclinations formed by the accumulation of cognitive and behavioral experiences that result in acceptance or rejection responses to various stimuli. Attitudes consist of three components: cognitive, affective, and behavioral. The cognitive component refers to the beliefs or convictions that the learner holds about the concepts or characteristics related to the subject of the attitude. An emotion and a value perspective towards the subjects accompany this belief (Hosny & Fatima, 2014). Belief alone does not constitute an attitude unless it is accompanied by the second component, the emotional component, through an emotional charge— whether it is a desire for it or a desire against it. With the change of emotions and behavior, which represents the third component of the attitude, also changes. We expect the learner's behavior to match their beliefs and desires. However, the reality indicates that a learner may have high positive attitudes towards a specific subject, but their behavior does not align with their attitude. This contradiction may be due to the absence of consistency between the accepted individual standards for behavior and the attitude (Park, 2009).

A study by Hosny & Fatima (2014) indicated that the presence of others can influence the learner's behavior, causing them to act in a way that differs from their attitudes. Vaughan (2002) pointed out that an attitude based on conscious personal experience leads the learner to behave in a way that aligns with their attitude. The formation of attitudes is linked to learning theories such as classical conditioning, modeling, or operant conditioning, as they are learned and can therefore be modified or changed through relearning (Al-Waqfi, 2003).

Attitudes play a significant role in helping learners progress in cognitive domains, making them more inclined toward the subjects they study. They feel these subjects are easy and enjoyable if their attitudes toward them are positive. Additionally, attitudes encourage perseverance, curiosity, and motivation to continuously improve performance. They play a crucial role in forecasting academic success, facilitating decision-making, and cultivating optimistic perspectives on the subjects under study (Salman, 2004). The attitudes of university students towards the courses in their study plans vary positively or negatively, and the nature of these attitudes is related to the names of these courses, their components, and their relevance to their majors and academic paths. Their academic achievement levels and grades also influence these attitudes. A study by Mao et al. (2021) through a meta-analysis of 37 studies concluded that the relationship between attitudes toward science courses and academic achievement in learning science among elementary and secondary school students is generally positive and moderate,

and it is also influenced by their gender, whether male or female. The study by Al-Naimi & Al-Obaidi (2009) indicated that the attitude towards the physical education curriculum is better among male students, and the level of students' and female students' adaptation to the university environment is determined considering these attitudes. The study by Al-Jubouri & Al-Hamdani (2006) indicated a positive and statistically significant relationship between attitudes toward academic majors, their courses, and compatibility with the university community. This means that as the attitude toward the major increases, the degree of compatibility with the university community also rises.

The study by Al-Sayed (2010) showed a positive correlation between quality of life and attitudes toward specialization and its courses. The study by Al-Jadhour (2015) found no differences in the attitudes of male and female students toward their specializations and the courses they contain, regardless of gender and academic level. The study by Rashid (2016) revealed that the relationship between attitudes toward specialization, its courses, and academic achievement was weak. The study by Hassan (2013) indicated that the attitudes of students in the Department of Electromechanical Engineering at the Technological University toward their academic specialization were positive, and their level of achievement motivation was also positive. It proved the existence of a strong relationship between attitudes and motivation among the study sample, regardless of gender, across the four academic years. Ibrahim's study (2019) showed that there is a link between how students feel about active learning and their motivation to succeed, and that students who have a more positive attitude towards active learning are more motivated to achieve than those who have a less positive attitude.

The motivation for achievement holds significant importance among the factors influencing and being influenced by university students' attitudes towards their academic programs, the level of interest in them, the desire to complete them, and the aspiration to achieve high academic and scholarly performance. A learner may possess adequate intellectual capacity and favorable environmental and familial conditions, but their attitudes towards certain courses in their academic program may be weak or negative, which diminishes their motivation for achievement in those courses or even leads to a loss of that motivation. Academic achievement and excellence do not solely depend on the learner's intellectual capabilities; rather, they are the result of numerous motivational, emotional, social, and economic factors (Khalifa, 2000b).

Motivation for learning refers to an internal state within the learner who drives them to pay attention to the educational situation and engage actively with the learning materials of the courses, continuing until learning is achieved. The drive for achievement, or the pursuit of excellence and superiority, is human motivation that sets us apart from other beings. Learners differ among themselves in the degree of the acceptable level of this drive and its connection to their attitudes towards these courses, whether negatively or positively; some see the necessity of tackling difficult tasks and achieving excellence, while others are content with the least amount of success (Qatami & Adas, 2002).

A study by Saha et al. (2021) indicated the impact of gender on achievement motivation, attitude towards science, and science achievement among tenth-grade high school students. No statistically significant differences were observed in achievement motivation, attitude towards science, and science achievement between the two genders in the study sample. Abdelshafy et al. (2025) founded the emotional regulation was positively correlated to academic grit. Additionally, emotional regulation emerged as a significant positive predictor of academic grit. It was also found that female students exhibited higher levels of emotional regulation and

academic grit than their male counterparts. The study by Longbaam et al. (2021) showed that students who were exposed to motivation performed better in the quantitative economics course than their peers who were not exposed to it. Additionally, students with positive attitudes toward the quantitative economics course performed better than those with negative attitudes.

The study by Saeed et al. (2020) confirmed the possibility of predicting achievement motivation among samples of high and low academic achievers in university students while they were studying their curriculum courses. The study by Dagneu (2017) found positive attitudes among students towards the learning environment and value education and a significant positive relationship between students' attitudes, achievement motivation, and academic performance. The study by Al-Adwan (2018) indicated a statistically significant positive correlation between attitude toward specialization and achievement motivation, and no statistically significant differences in achievement motivation were attributed to the academic level. The study by Adegboyega (2018) found a correlational relationship between achievement motivation and students' attitudes towards course exams and that most of the study sample students had high achievement motivation and high positive attitudes towards the exams. The study by Al-Ayed et al. (2013) concluded that there are no statistically significant differences in students' motivations to choose a specific major attributed to the educational level of the father or mother, while there is a correlation between students' motivations to enroll in the major and their attitudes towards their future profession. The study by Al-Naemi & Al-Obaidi (2009) showed a correlational relationship between achievement motivation scores and attitudes towards physical education classes. The study by Al-Shanawi (1989) showed a positive correlation between achievement motivation and attitudes toward the mathematics curriculum.

Methodology

The study used a descriptive approach to understand how male and female students at the Applied College of Imam Abdulrahman bin Faisal University feel about academic programs and their motivation to succeed, as well as to find out what factors influence their feelings about these programs. The study sample consisted of 192 students (56 M. & 136 F.) at the Applied College of Imam Abdulrahman bin Faisal University, with an average age of 19.58 years and a standard deviation of 1.25.

Data collection: Quantitative data were collected using the scale of attitudes of students at the Applied College of Imam Abdulrahman bin Faisal University towards academic programs (prepared by the researchers). The scale consists of 10 statements, according to a five-point ordinal scale ranging from 1 to 5 degrees, where a high score indicates positive attitudes. The scale is characterized by high psychometric properties. We applied the scale to (50) male and female students at the Applied College (outside the study sample) after obtaining their consent. The results showed that the different parts of the scale were closely related to the overall score, with correlation values between 0.47 and 0.72, and the overall reliability of the scale was 0.79.

The Achievement Motivation Scale, developed by Hermans (1970) and translated into Arabic by Moussa (1982), was also applied. The scale is commonly used in Arabic research. The scale consists of 28 statements, with alternatives based on a five-point Likert scale, arranged in the order of 5, 4, 3, 2, and 1 for positive statements and the reverse for negative statements. The positive statements for the scale are numbers (2, 5, 6, 7, 8, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26), and the negative statements are numbers (1, 3, 4, 9, 15, 16, 27, 28). The highest score respondents can achieve on the scale is 140, and the lowest score is 28. Criterion-related validity was used; the scale was applied alongside the Achievement Motivation Scale

(Khalifa, 2000 a) on the same standardization sample. By calculating the correlation coefficient between the sample scores on the two scales, the Pearson correlation coefficient was found to be 0.654, which is significant at the 0.01 level. Cronbach's alpha reliability coefficient for the scale was 0.87.

The study was conducted in the second semester of the 2023/2024 academic year by preparing a link for the scale and the basic data for the study sample (GPA, gender, college, and age). The link for the scale was available for application for thirty days (1-30/4/2024), and students who voluntarily agreed to participate responded. The researchers used statistical methods like averages, standard deviations, Cronbach's alpha, Pearson correlation coefficient, and t-value to compare the averages of two separate groups, along with one-way ANOVA and multiple regression analysis.

Results

The first question results: What is the nature of the correlation between the attitude toward academic courses and achievement motivation? To answer this question, the relationship between attitude toward academic courses and achievement motivation was calculated for the study sample using the Pearson correlation coefficient. The following table shows the correlation coefficients.

Attitude	achievement	
	Pearson Correlation	.231**
	Sig. (2-tailed)	.001
	N	192

Table 1. Correlation Between Attitude and Achievement (N=192)

Table 1 shows a significant correlational relationship between achievement motivation and attitudes towards academic courses, meaning that as the level of achievement motivation increases, the positive attitudes of students towards academic courses also increase.

The second question results: What is the nature of the differences between male and female students in their attitudes toward courses and their motivation for achievement? We calculated the differences in attitudes towards courses and achievement motivation between male and female students to answer this question.

		Male		Female			
		56		136			
	M	SD	M	SD	Df	t	Sig.
Attitude	24.82	5.89	26.15	5.14	190	1.56	.120
Achievement	74.68	11.90	76.83	8.51	190	1.41	.160

Table 2. Differences Between Males and Females in Attitude and Achievement

Table 2 shows no statistically significant differences between males and females in their attitudes toward the courses, and it also shows no statistically significant differences between males and females in achievement motivation.

The third question results: Do attitudes toward courses and motivations for achievement differ by major? We conducted a one-way ANOVA to analyze the differences in attitudes towards

courses and achievement motivation across different majors to answer this question.

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Attitude	Between Groups	273.50	3	91.17	3.25	.02
	Within Groups	5278.95	188	28.08		
	Total	5552.45	191			
Achievement	Between Groups	947.19	3	315.73	3.53	.02
	Within Groups	16815.89	188	89.45		
	Total	17763.08	191			

Table 3. Differences Between Specialists in Attitude and Achievement (ANOVA)

The comparison between different majors in the direction towards the courses presented in Table 4. Majors are: (1) Human Resources, (2) Financial Sciences, (3) Network Security, (4) Management.

	Human Resources 25.96	Financial Sciences 26.57	Network Security 22.45	Management 23.68
Human Resources 25.96	-	-.61	-3.51*	2.28
Financial Sciences 26.57	-.61	-	-4.12*	-2.89*
Network Security 22.45	-3.51*	-4.12*	-	-1.23
Management 23.68	-2.28	-2.89*	1.23	-

Table 4. Results of the Comparison Between Different Majors in the Direction Towards the Courses

*Significant at the 0.05 level in the direction of the higher mean.

Table 4 shows that:

1. There are statistically significant differences at the 0.05 level between the average scores of the Network Security and Human Resources majors in their attitude towards the courses, favoring the Human Resources major.
2. There are statistically significant differences at the 0.05 level between the average scores of the Network Security and Financial Sciences majors in their attitudes towards the courses, favoring the Financial Sciences major.
3. There are statistically significant differences at the 0.05 level between the mean scores of the Financial Sciences and Management majors in their attitude towards the courses, favoring the Financial Sciences major.

	Human Resources 77.69	Financial Sciences 76.33	Network Security 76.91	Management 70.27
Human Resources 77.69	-	1.36	0.78	7.42*
Financial Sciences 76.33	-1.36	-	-0.58	6.06*
Network Security 76.91	-0.78	0.58	-	6.64*

Management 70.27	-7.42*	-6.06*	-6.64*	-
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Table 5. Results of the Comparison Between Different Majors in Achievement Motivation

*Significant at the 0.05 level in the direction of the higher mean.

Table 4 shows that:

1. There are statistically significant differences at the 0.05 level between the mean scores of the Management and Human Resources majors in achievement motivation, favoring the Human Resources major.
2. There are statistically significant differences at the 0.05 level between the mean scores of the Finance and Management majors in achievement motivation in favor of the Finance major.
3. There are statistically significant differences at the 0.05 level between the mean scores of the Network Security and Management majors in achievement motivation, favoring the Network Security major.

The fourth question results: To what extent do some variables contribute to predicting the attitudes of male and female students at the Applied College toward certain courses in the study plans and their motivation to learn them?

To answer this question, we used a method called stepwise multiple regression analysis, where we add independent variables to the model one at a time and remove any that are not significant when other variables are included. This method is considered one of the best approaches for calculating multiple regression analysis (Bashir, 2003). Table 6 shows the results of the regression analysis.

Domain	Items	B	T	Sig.	F	P	R2 Adjusted
Attitude	Achievement	0.11	2.05	0.04	2.61	0.03	0.20
	Gender	0.32	0.27	0.78			0.03
	Specialist	0.22	0.25	0.80			0.05
	Academic level	0.66	0.86	0.39			0.17
	GPA	0.03	1.38	0.17			0.13

Table 6. Multiple Regression Analysis to Predict Independent Variables (Achievement, Gender, specialist, Academic level and GPA) With Attitude for Applied Faculty students (n = 192)

Table 6 shows that:

1. The strength of the relationships between the independent variables and the dependent variable.

The value of the adjusted R^2 is 0.20, which means that the independent variables combined explain only about 20% of the variance in the attitude toward the courses. This percentage is considered relatively moderate to weak, indicating that there are other factors not included in this model that may have a significant impact on the attitude toward the courses.

2. The significance level of the independent variables:

a) Achievement:

- The regression coefficient ($\beta = 0.11$) indicates a weak positive relationship between academic achievement and attitudes toward academic courses.

- The T value = 2.05 and the significance level Sig. = 0.04 indicate that academic achievement has a significant effect because Sig. is less than 0.05.
- This means that students with higher achievement motivation tend to have more positive attitudes toward their courses.

b) Gender:

- The regression coefficient ($\beta = 0.32$) indicates a positive relationship between gender and attitudes toward academic courses.
- However, the T value = 0.27 and the significance level Sig. = 0.78 indicate that gender does not have a significant effect (Sig. > 0.05).
- Therefore, gender does not seem to play an important role in shaping attitudes toward academic courses.

c) Specialist:

- The regression coefficient ($\beta = 0.22$) indicates a positive relationship between the major and attitude toward the courses.
- But the value of T = 0.25 and the significance level Sig. = 0.80 indicate that the specialization has not had a significant effect (Sig. > 0.05).
- Therefore, it does not seem that the type of specialization significantly affects the trends.

d) Academic Level:

- The regression coefficient ($\beta = 0.66$) indicates a strong positive relationship between academic level and attitude toward courses.
- However, the T value = 0.86 and the significance level Sig. = 0.39 indicate that the academic level does not have a significant effect (Sig. > 0.05).
- Therefore, the academic level does not seem to significantly affect the attitudes.

e) Cumulative GPA:

- The regression coefficient ($\beta = 0.03$) indicates a very weak positive relationship between the GPA and attitude toward the courses.
- The T value = 1.38 and the significance level Sig. = 0.17 indicate that the cumulative GPA does not have a significant effect (Sig. > 0.05).
- Therefore, the cumulative average does not seem to significantly affect the trends.

3. F value and significance level (P):

- The value of F = 2.61 and the significance level P = 0.03 indicate that the model as a whole has a significant effect ($P < 0.05$).
- This means that the set of independent variables collectively contributes significantly to explaining the trend towards the courses, but as mentioned earlier, the explanatory power (R^2 Adjusted = 0.20) is not high.

Discussion

The purpose of the current study was to reveal the role of achievement motivation, gender,

specialization, academic level, and cumulative GPA in predicting the attitudes of male and female students at the Applied College towards academic courses. The results showed a significant positive correlation between achievement motivation and the attitudes of male and female students towards academic courses, and statistically significant differences between specializations in attitudes towards courses and achievement motivation. The results also showed no statistically significant differences between male and female students in attitudes towards academic courses and achievement motivation. Additionally, the results indicated that achievement motivation as a variable can predict students' attitudes towards academic courses, highlighting the importance of motivation in shaping students' attitudes.

The first question addressed the nature of the relationship between achievement motivation and students' attitudes toward academic courses. The results showed a significant positive relationship between the two variables. This result is consistent with the findings of studies by Al-Zghoul (2004), Al-Samadi & Ma'abra (2006), Dagneu (2017), Al-Adwan (2018), and Adegboyega (2018). This result can be interpreted considering the achievement motivation level of the students at the Applied College, which contributes to forming positive attitudes towards all academic courses regardless of their nature. Achievement motivation may support students in doing the following:

- Flexible thinking: Academic achievement requires an appropriate level of intrinsic motivation for learning, which enables the student to think flexibly and create opportunities to invest in the material and cognitive potential available to them to overcome any obstacles that hinder their academic goals. Such an attitude contributes to a constant motivation for self-learning and maintaining balance in the face of academic challenges that obstruct their studies, thus allowing them to handle their coursework flexibly.
- Questioning and problem-solving: The concept of achievement motivation involves the student's readiness to take responsibility and the importance of planning for the future. Students typically use problem-solving and questioning techniques to plan for the future, enabling them to anticipate future scenarios. A student with achievement motivation asks themselves questions and seeks answers related to their academic level and the likelihood of encountering educational and academic problems in the future, which increases their motivation to engage with their coursework in a positive and effective manner.
- Passion and desire for learning: The desire for learning encompasses the meaning of intrinsic motivation that can be stimulated through actual academic achievement; both passion for learning and motivation for achievement can be considered two consecutive steps, representing a qualitative leap in the academic behavior of university students from the level of thinking and planning for learning to the level of achievement and behaviors associated with learning.

The second question addressed the differences between male and female students' attitudes toward academic courses. The results showed no statistically significant differences between males and females. This finding aligns with the results of Al-Jadou's (2015) conclusion that there is no difference in students' attitudes toward their academic majors based on gender. This disparity can be explained by the fact that students' (both male and female) attitudes towards courses may be influenced by several factors, such as the social environment, cultural values, and personal inclinations. Male students may tend to prefer courses related to applied sciences or sports, while female students may prefer literary or humanities courses. However, we must exercise caution when making unjustified generalizations, as these attitudes are subject to change

due to environmental, educational, and familial factors.

Regarding achievement motivation, the results indicated no differences between students (males & females) in achievement motivation. The levels of motivation between males and females vary due to multiple factors, including social upbringing, family expectations, and available opportunities. Some studies suggest that females may exhibit a high level of motivation to achieve academic success due to the emphasis on education as a means of personal and professional empowerment. However, this does not imply that males are less motivated for academic success; they may have different motivators such as self-actualization or competition. The gender factor (male or female) is not a significantly influential factor on the attitude towards courses or achievement motivation. The slight differences in the averages of the current study's results may be due to other factors such as the family environment, social expectations, or the psychological state of students during their studies. However, these differences are not sufficient to prove a clear impact of gender on the studied variables. It is necessary to focus on studying other factors that may influence the attitude toward courses and achievement motivation, such as teaching methods, the educational environment, psychological and social support, and family expectations. Future studies can also include larger samples or additional variables (such as economic status or cultural background) to gain a more profound understanding of these differences.

Regarding the third question about differences between majors, the results indicated statistically significant differences between majors in attitudes towards courses and achievement motivation. This finding reflects the impact of the type of major on these variables, and these differences suggest that the nature of the major may be a factor influencing students' attitudes and their motivation to achieve success. The differences can be explained by the fact that some majors may be more attractive or provide a stimulating educational environment, leading to more positive attitudes toward those courses and higher levels of achievement motivation.

For example, students in the Human Resources and Financial Sciences majors have more positive attitudes toward their courses compared to those in Network Security or Management. The results also indicated that students in these majors have a higher motivation for achievement than those in other majors, which means that the Network Security and Management majors need to develop achievement motivation to foster positive attitudes towards their courses. Therefore, the differences between specializations in attitudes towards courses and achievement motivation confirm that the type of specialization is an important and influential factor. This necessitates universities consider the differences between specializations when designing and developing curricula and providing psychological and educational support to students to improve the educational environment and enhance students' motivation to learn.

The results of the fourth question of the current study indicated that achievement motivation can predict students' attitudes towards academic courses, while the results of Al-Adwan's 2018 study indicated that the variables of gender, specialization, academic level, and cumulative GPA cannot predict students' attitudes towards academic courses.

This finding can be explained by the fact that achievement motivation is the only variable that can have a significant impact on students' attitudes towards academic courses, indicating the importance of academic performance in shaping students' attitudes. In contrast, other variables such as gender, major, academic level, and cumulative GPA did not show any significant impact on attitudes, suggesting that they may not be critical factors in this context. Other factors not included in this model (such as the educational environment, teaching methods, or psychological

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and social support) should be explored to better understand attitudes.

Suggestions

The researchers suggest expanding the scope of the research and study to include additional factors in other studies, such as:

- Teaching methods, the quality of educational materials and students' academic and psychological support.
- The influence of the social and family environment is also a significant factor.
- Other analytical methodologies (such as path analysis or structural models) can also be used to better understand the complex relationships between variables.
- The academic factor is the most influential in shaping the attitudes of students at the Applied College toward the courses, while other factors (gender, major, academic level, and cumulative GPA) do not seem to have a significant impact. However, the low explanatory power (R^2 Adjusted = 0.20) indicates the need to study additional factors to understand these trends more comprehensively in future research.

Summary and Recommendations

The study concluded that there is a positive relationship between attitudes toward academic courses and achievement motivation, ranging from weak to moderate. The result indicates that achievement motivation plays an important role, but it is not the only factor in shaping students' attitudes towards academic courses. Additionally, there are no statistically significant differences between males and females in attitudes toward courses or achievement motivation. There are differences between specializations in attitudes towards courses and achievement motivation, reflecting the impact of the type of specialization on these variables. Achievement motivation is the only variable that has a significant impact on the attitude towards academic courses, while other variables such as gender, specialization, academic level, and cumulative GPA did not show any significant impact on attitudes, indicating that they may not be decisive factors in this context.

Researchers recommend that:

- The necessity for universities to benefit from the study results in improving the educational environment and enhancing students' motivation towards learning, considering the differences between disciplines, especially when designing and developing curricula, and working on providing psychological and educational support to students.
- The necessity of focusing on the importance of the academic performance index in shaping students' attitudes toward courses when reviewing and developing course curricula.
- Conduct future studies on other factors that may influence attitudes towards courses and motivation for achievement, such as teaching methods, the educational environment, psychological and social support, family expectations, economic status, or cultural background to gain a deeper understanding of these differences.
- Conduct future studies to identify the majors that record the highest and lowest levels of attitudes and motivation and then work on improving the educational environment for those majors.

Declarations

- **Author Contributions.** A.B., conceptualization, methodology, A.S., validation, investigation & formal analysis, W.R., resources, data curation, Y.A., writing original draft preparation, S.A., writing—review and editing, M.H., revision, writing references & publishing. All authors have read and agreed to the published version of the manuscript.
- **Conflicts of Interest.** The authors declare no conflict of interest.
- **Ethical Approval.** IAU University approved the study and allowed the researchers to begin the research. The participant was then required to sign an informed consent form.
- **Informed consent:** participant signed informed consent regarding publishing his data.
- **Data Availability Statement.** The data supporting the findings of this study are available on request from the corresponding author. The data is not publicly available because they contain information that could compromise the privacy of study participants.

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