

The Relative Contribution of Psychological Empowerment in Predicting Academic Self-Efficacy Among Graduate Students at the College of Education at King Faisal University

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Abstract

This study aimed to explore the role of psychological empowerment in predicting academic self-efficacy among graduate students at the College of Education, King Faisal University. It also investigated how these levels vary across different factors such as gender, department, and academic level. Additionally, the research aims to understand how psychological empowerment can predict academic self-efficacy among these students. Employing a descriptive, predictive, and correlational approach, the researcher utilized scales for psychological empowerment and academic self-efficacy to collect data from 268 graduate students. The study found high levels of psychological empowerment and academic self-efficacy among the sample, there were no significant differences in psychological empowerment scores by gender or department. However, important differences based on academic level favored students in field training with a thesis. Similarly, academic self-efficacy scores showed no significant differences by gender or department but favored students at the thesis level. The findings highlighted the predictive role of psychological empowerment in academic self-efficacy among graduate students at the College of Education. and Recommendations: include faculty and academic leaders at the College of Education in supporting psychological empowerment among graduate students and educating them on its importance for enhancing self-confidence and decision-making in academic and practical contexts.

Keywords: *Psychological empowerment; academic self-efficacy; graduate students; education.*

Introduction

Psychological empowerment influences graduate students' academic performance, which is crucial for advancing knowledge through research. Studying this variable in samples aids in understanding mechanisms supporting academic achievement; Elamrousy's (2019) and Mobarki's (2022) studies confirmed this.

Ambad and Bahren (2012) found that psychological empowerment enhances individuals' self-efficacy awareness and belief, enabling effective problem-solving and improving quality of life. It also promotes self-confidence and skills acquisition for knowledge attainment.

The study by Satici and Can (2016) indicates that students' confidence in their abilities to accomplish academic tasks increases their mental efforts during the educational process. Students with high academic self-efficacy continuously try to achieve those academic tasks and do not give up easily.

Academic self-efficacy is a significant factor influencing personality. It reflects beliefs in the ability to achieve goals (Bandura, 1994). It represents confidence in performing behaviors. Academic self-efficacy impacts learning paths and decisions (Malkoc & Mutlu, 2018).

The above underscores that psychological empowerment and academic self-efficacy contribute to personal and academic success by enhancing confidence, independence, and goal achievement.

Theoretical Framework and Review of Literature

Psychological Empowerment

Psychological empowerment enhances graduate students' academic success by motivating, developing, and equipping them with essential skills for educational and professional goals. It supports sustained excellence, aiding in managing study pressures and research tasks effectively (Masi, 2003).

Mahmood and Al-Dulami (2023) define psychological empowerment as students' ability to achieve peak performance, exert control over their outcomes, understand tasks consciously, and aim for results that align with their goals (p. 180).

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According to (Al-Hammadi & Rababah, 2020) also defined psychological empowerment as “the process of an individual learning and using problem-solving skills to control his life, and it includes self-efficacy and the center of control” (p. 151).

In addition, Al-Ashush (2021) defines psychological empowerment as a multidimensional concept involving motivation, self-efficacy, responsibility, control over the social environment, and enhanced decision-making abilities.

Researchers define psychological empowerment enables individuals to feel satisfied with their work and achievements, confront challenges confidently, manage time efficiently, and possess leadership skills that enhance decision-making.

The theory that explains psychological empowerment:

Encompass the Zimmerman and Spreitzer models. Zimmerman defines it as three-dimensional—self-image, cognitive control, and self-efficacy—incorporating intrapersonal beliefs, societal awareness, and behavioral actions for change (Zimmerman, 1995). Spreitzer's model emphasizes four dimensions: meaning, competence, autonomy, and influence. These dimensions enhance motivation, confidence, academic success, and peer impact in graduate studies (Spreitzer, 1995).

Academic Self-Efficacy

Academic self-efficacy is considered a measure of a student's self-confidence and educational achievements. The concept of academic self-efficacy appeared at the hands of the scientist Bandura, the first to introduce the idea of academic self-efficacy into his theory of social-cognitive learning in the seventies of the last century. He defined it as an individual's self-belief about his ability to achieve highly efficiently (Bandura, 1997).

Furthermore, Bandura (1994) suggests that academic self-efficacy beliefs reflect students' assessments of their capabilities in education. It influences academic success, motivation, and personal accomplishments, motivating active engagement and overcoming challenges. Bandura underscores that students' capacity to accomplish academic tasks effectively bolsters their motivation significantly.

In light of this, Abdullah (2018, p. 105) defined academic self-efficacy as an individual's beliefs about the academic situation and his attitudes toward it, which reflect a set of effective practices during different learning situations.

As defined by Hasban (2021, p. 18), academic self-efficacy is students' confidence in their ability to deal with academic tasks, face challenges, and achieve performance goals successfully.

Moreover, Shloul (2021, 185) stated that beliefs about the skills and abilities he possesses contribute greatly to solving the problems he is exposed to, in addition to successfully performing activities and tasks.

Arslantas (2021, p. 18) describes it as students' beliefs and attitudes toward their ability to achieve academic success, perform academic tasks, and learn successfully, which is a critical factor affecting educational performance.

Most recently, Makiah (2023) also defines academic self-efficacy as "the beliefs that an individual has about his abilities to adapt to the educational environment, solve its problems, and confront the complex situations in it" (p. 131).

The Theory that Explains Academic Self-Efficacy

Bandura developed academic self-efficacy theory within social learning theory. Self-efficacy represents an individual's ability to organize and implement action plans and belief in achieving goals with skills. The basic principle is that those with high efficiency participate in activities, while those with low efficiency are less likely to participate (Ouma, 2021).

Social learning theory emphasizes mutual interaction among elements in the learning process: the individual, surrounding environment, and resulting behavior. Internal processes like thoughts, mental images, expectations, and goals are included (Al-Zaghoul, 2015).

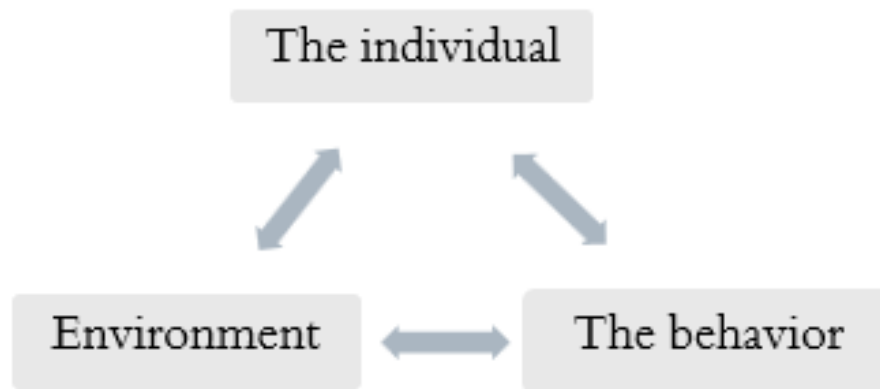


Figure 1. A diagram showing the principle of determinism and mutual interaction between the individual, environment, and behavior

Bandura suggests that individuals assess their abilities to control events and perseverance. Enhanced self-efficacy improves control, and problem-solving (Al-Atoum et al., 2017). Al-Qurashi (2022) attributes academic self-efficacy to beliefs about task accomplishment impacting cognitive efficiency.

Prior research highlighted psychological empowerment and academic self-efficacy's significance among students, and these studies encompassed:

Aloysius's (2013) study found high psychological empowerment correlated with better academic performance and positive university staff interactions at the University of Putra, Malaysia. Students noted psychological empowerment enhanced academic freedom despite early challenges.

Similarly, Al-Anzi's (2021) study found a high level of psychological empowerment among university students, with no differences based on gender or educational level, though differences existed based on degree programs.

Al-Otaibi's (2022) study at Shaqra University found high levels of psychological empowerment among students, with differences favoring females in psychological empowerment, but no statistical differences between academic levels.

In another study, Elamrousy (2022) found high levels of information literacy and psychological empowerment among graduate students, with a positive correlation between the two. Males and doctoral students showed higher psychological empowerment than females and master's students respectively.

Furthermore, Kamel's study (2015) study found an average level of academic self-efficacy among University of Jordan students, with differences in perceived academic self-efficacy attributed to cognitive and holistic beliefs favoring humanities. No differences were observed due to educational level or gender.

In another study, Al-ersan's (2017) at the University of Hail, academic self-efficacy and problem-solving skills were examined among students. Results showed moderate academic self-efficacy levels overall, with higher levels observed among females and those at higher educational levels.

In another research, Mutlaq's (2019) study found high academic self-efficacy among university students and a positive correlation with cognitive biases, with humanities students exhibiting stronger correlations between academic self-efficacy and cognitive biases compared to other specializations.

Moreover, Svartdal et al. (2021) study on University of Norway students found moderate to high levels of academic self-efficacy, with study skills and habits playing a significant role in its development.

Additionally, Aboallymoun and Al-Rabie (2022) aimed to model the causal relationships between self-visibility, mental alertness, and academic self-efficacy among Yarmouk University students. The results showed an average level of academic self-efficacy among Yarmouk University students.

Moreover, Al-Dahamsha (2019) observed moderate levels of psychological empowerment, self-efficacy, and achievement motivation among secondary school students. While no gender disparities were noted in

psychological empowerment and self-efficacy, a statistically significant positive correlation existed between these variables.

Similarly, the study conducted by (Ali & Al-Sayyid, 2021) study on teachers of gifted students in Jeddah found high levels of self-efficacy and psychological empowerment, with a positive correlation between the two. No significant differences were observed in self-efficacy and psychological empowerment scores across gender, years of experience, or educational sector (governmental vs. private).

Past research shows psychological empowerment and academic self-efficacy are important for student success (grades, performance, well-being) in education. Graduate school is especially important for developing academic skills. These factors help students have positive interactions and succeed despite challenges. This study focuses on how psychological empowerment impacts academic achievement, emphasizing how it improves graduate student well-being and performance. The following questions frame the research problem:

1. What is the level of (psychological empowerment and academic self-efficacy) among graduate students?
2. Are there statistically significant differences between the average scores of students on the Psychological Empowerment Scale among graduate students due to variables (gender, department, academic level)?
3. Are there statistically significant differences between the average scores of students on the academic self-efficacy scale graduate among students due to variables (gender, department, academic level)?
4. Does psychological empowerment contribute to predicting academic self-efficacy among graduate students?

Methodology of Research

Sampling and Population

Population

The study population consisted of all regular students at the College of Education at King Faisal University. during the academic year (2024), It comprises (657) graduate students at the College of Education at King Faisal University.

The Study Sample

A sample of 268 postgraduate students (male and female) from King Faisal University's College of Education (second semester, 2024) was chosen using simple random sampling. This method ensured equal student representation across genders, academic levels, and departments,

Table 1. Shows the distribution of study individuals according to their demographic characteristics.

Variables	Categories	Duplicates	percentage
Gender	Male	106	39.6
	Feminine	162	60.4
Department	Physical Education	40	14.9
	Special Education	48	17.9
	Art Education	12	4.5
	Education and Psychology	82	30.6
	Educational Leadership	53	19.8
Academic level	Curricula, Teaching Methods	33	12.3
	Study Courses	66	24.6
	Thesis	135	50.4
	One or More Courses with A Thesis	32	11.9
	Field Training with Thesis	35	13.1
Total		268	100

It is clear from Table No. (1) the most significant percentage of the study sample members are female, with a frequency of (162) female students, representing (60.4%), while there are (106) of the study sample members, representing (39.6%) males. As for the department, there are (82) students (30.6%) in the Education and Psychology Department, while there are (12) students (4.5%) in the Art Education Department, and about the Academic level variable, there are (135) students (4.5%) in the Art Education Department. (50.4%) with a thesis, while there are (32) students (11.9%) whose academic level is One or more courses with a thesis.

Statistical Methods Used in the Study

Statistical methods included duplicates and percentages for sample characteristics, Pearson correlation for study tool consistency, Cronbach's Alpha for scale reliability, one-sample T-test, independent T-tests for gender differences in psychological empowerment and academic self-efficacy, Kruskal-Wallis test for department variations (One-way ANOVA), and multiple regression to predict academic self-efficacy by psychological empowerment.

Results and Discussion

Psychological Empowerment Scale

They were prepared by (Elamrousy, 2019). The scale comprises 25 statements across four dimensions: meaning, competence, independence good behavior, and influence. It uses a Likert method pentameter. Scores range from 25 (minimum) to 125 (maximum).

A- Internal consistency validity of the Psychological Empowerment Scale

The internal consistency validity of the Psychological Empowerment Scale was confirmed using the Pearson correlation coefficient on a survey sample of 50 students.

Table 2. shows the correlation coefficients of the psychological empowerment scale statements with the total score for each dimension.

Meaning		Efficiency		Independence and good behavior		the influence	
Phrase	Correlation Coefficient	Phrase	Correlation Coefficient	Phrase	Correlation Coefficient	Phrase	Correlation Coefficient
1	0.623**	8	0.531**	14	0.521**	20	0.635**
2	0.605**	9	0.622**	15	0.704**	21	0.704**
3	0.737**	10	0.771**	16	0.626**	22	0.726**
4	0.772**	11	0.701**	17	0.545**	23	0.608**
5	0.645**	12	0.662**	18	0.694**	24	0.767**
6	0.674**	13	0.685**	19	0.754**	25	0.811**
7	0.564**	-	-	-	-	-	-
0.808**		0.880**		0.884**		0.870**	

Note: ** p at (0.01)

It is clear from Table No. (2) All correlations between the psychological empowerment scale phrases and their dimension scores, as well as between each dimension and the overall score, were significant ($p < 0.01$), the correlation coefficients between dimensions and the overall score ranged from 0.808 to 0.884, indicating good reliability for the study tool.

B- Reliability of the Psychological Empowerment Scale

Table 3. The reliability of the Psychological Empowerment Scale is measured using Cronbach's alpha coefficient.

Dimensions	Number of phrases	Stability coefficient
Meaning	7	0.789
Efficiency	6	0.814
Independence and good behavior	6	0.846
the influence	6	0.894

Overall reliability of the scale	25	0.932
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Through Table No. (3), the psychological empowerment scale is characterized by acceptable statistical reliability, as the average overall reliability coefficient (alpha) reached (0.932), and dimensional reliability is also good (between 0.789 and 0.894). This indicates the scale is reliable for this study.

The Academic Self-Efficacy Scale

Developed by Al-Qurashi (2022), this comprehensive tool includes 32 phrases across five dimensions: cognitive skills, previous experiences of success and failure, academic context, academic behavior, and organization and time management. It employs a Likert pentameter method, with scores ranging from 32 to 160.

A- Internal Consistency Validity of the Scale

The academic self-efficacy scale's internal consistency validity was confirmed using the Pearson Correlation Coefficient with a survey sample of 50 students.

Table 4. Shows the correlation coefficients of the academic self-efficacy scale statements with the total score for each dimension.

Cognitive skills		Previous experiences of success and failure		Academic context		Academic behavior		Organization and time management	
Phrase	Correlation Coefficient	Phrase	Correlation Coefficient	Phrase	Correlation Coefficient	Phrase	Correlation Coefficient	Phrase	Correlation Coefficient
1	0.743**	9	0.572**	15	0.807**	21	0.659**	27	0.529**
2	0.591**	10	0.586**	16	0.703**	22	0.573**	28	0.590**
3	0.712**	11	0.644**	17	0.549**	23	0.637**	29	0.527**
4	0.605**	12	0.727**	18	0.682**	24	0.700**	30	0.555**
5	0.628**	13	0.523**	19	0.593**	25	0.699**	31	0.576**
6	0.735**	14	0.646**	20	0.766**	26	0.545**	32	0.669**
7	0.536**	-	-	-	-	-	-	-	-
8	0.631**	-	-	-	-	-	-	-	-
0.773**		0.759**		0.678**		0.732**		0.798**	

Note: ** p at (0.01)

It is clear from Table No. (4) All statements on the academic self-efficacy scale significantly correlated ($p < 0.01$) with both their corresponding dimension score and the overall scale score. This indicates strong internal consistency within the scale. The correlation coefficients for the dimensions ranged from 0.678 to 0.798, indicating strong and reliable associations for the current study tool.

B- Reliability of the Academic Self-Efficacy Scal:

Table 5. The reliability of the academic self-efficacy scale is assessed using Cronbach's alpha coefficient.

Dimensions	Number of phrases	Stability coefficient
Cognitive skills	8	0.782
Previous experiences of success and failure	6	0.737
Academic context	6	0.763
Academic behavior	6	0.786
Organization and time management	6	0.766
The total score of the scale	32	0.857

It is clear from Table No. (5) confirms acceptable stability for the academic self-efficacy scale ($\alpha=0.850$). The reliability coefficients' values for the scale's dimensions ranged between (0.737 to 0.786).

The first question: What is the level of (psychological empowerment and academic self-efficacy) among graduate students?

Table 6. One-sample t-test on psychological empowerment in graduate students at College of Education.

Dimensions	Number	Arithmetic Mean	Standard Deviation	Hypothetical Average	T Value	Significance Level
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Meaning	268	31.11	2.94	21	56.212	0.001
Efficiency	268	25.19	3.95	18	29.79	0.001
Independence and good behavior	268	26.42	3.25	18	42.46	0.001
the influence	268	25.31	3.85	18	31.07	0.001
Total marks	268	108.03	12.08	75	44.776	0.001

It is clear from Table (6) that the level of psychological empowerment among graduate students at the College of Education came with a high degree with an arithmetic mean (108.03) and a standard deviation (12.08) compared to the hypothetical mean (75.0), where the value of (T) for the total score reached (44.776) with a significance level of (0.001), which indicates the statistically significant differences between the arithmetic mean of students' grades and the hypothetical average, where it comes after the meaning in first place with an arithmetic mean (31.11) and a standard deviation (2.94), followed by independence and good behavior. With an arithmetic mean (26.42) and a standard deviation (3.25), and in third place comes the impact with an arithmetic mean (25.31) and a standard deviation (3.85), and in the end comes after efficiency as the lowest dimension, Psychological Empowerment among graduate students at the College of Education with an arithmetic mean (25.19) and a standard deviation (3.95), The result of the current study also agreed with the result of the Al-Anzistudy (2021). which found that the level of psychological empowerment among university students was high, and the result of the current study agreed with the result of the study (Ali & Al-Sayyid, 2021), which concluded that the level of psychological empowerment among teachers of gifted students in Jeddah Governorate was high, The current study also agreed with the Al-Otaibi study (2022), which found that the level of psychological empowerment in Shaqra University students came with a high score. The result of the current study also agreed with the result of the study (Elamrousy, 2022), which concluded that graduate students have a high level of psychological empowerment, while the result of the current study differed from the result of the Al-Dahamsha study (2019), which I found that the level of psychological empowerment among secondary school students was moderate.

Table 7. shows the results of a one-sample t-test to determine the level of academic self-efficacy among graduate students at the College of Education.

Dimensions	number	Arithmetic mean	Standard deviation	Hypothetical average	T value	Significance level
Cognitive skills	268	33.12	3.73	24	39.974	0.001
Previous experiences of success and failure	268	25.04	3.45	18	33.353	0.001
Academic context	268	23.11	2.88	18	29.031	0.001
Academic behavior	268	25.72	2.68	18	47.134	0.001
Organization and time management	268	23.79	3.66	18	25.933	0.001
Total	268	130.78	12.34	96	46.123	0.001

It is clear from Table No. (7) that the level of academic self-efficacy among postgraduate students at the College of Education was high with an arithmetic average (130.78) and a standard deviation (12.34) compared to the hypothetical average (96.0), where the value of (t) was (46.123) with a significance level of (0.001), which indicates statistically significant differences between the Arithmetic mean of students' grades and the Hypothetical average, where Cognitive skills come in first place with an arithmetic mean (33.12) and a standard deviation (3.73), followed by Academic behavior with an arithmetic mean (25.72) and a standard deviation. (2.68), and comes in third place after Previous experiences of success and failure with a mean of (25.04) and a standard deviation of (3.45), and comes after Organization and time management in fourth place with a mean of (23.79) and a standard deviation of (3.66), and finally comes after Academic context As the lowest dimension of academic self-efficacy among postgraduate students at the College of Education, with an arithmetic mean of (23.11) and a standard deviation of (2.88), the result of the current study agreed with the result of the Mutlaq study (2019), which concluded that students of colleges at Al-Mustansiriyah University have a high level of From academic self-efficacy, the result of the current study also agreed with the result of the study by (Svartdal et al., 2021), which found that the level of academic self-efficacy among students at the University of Norway was high. while the result of the current study

differed from the result of Kamel's study (2015), which found that the level of self-efficacy among students at the Academic University of Jordan was moderate. The current study's result also differed from Al-ersan's (2017), which found a moderate level of academic self-efficacy among students at the University of Hail. The current study's result also differed from the Al-Dahamsha study (2019), which concluded that the level of self-efficacy among secondary school students was average. The current study differs from Aboallymoun and Al-Rabie's (2022). At the same time, Al-Rabie's (2022) average academic self-efficacy at Yarmouk University was found.

The second question: Are there statistically significant differences between the average scores of students on the Psychological Empowerment Scale among graduate students due to variables (gender, department, academic level)?

A-Differences According to the Gender Variable

Table 8. Shows T-test results for gender-based differences in psychological empowerment among Education College graduate students.

Dimensions	Gender	number	Arithmetic mean	Standard deviation	T value	Significance level
Meaning	Male	106	31.07	2.79	0.189	0.85
	Feminine	162	31.14	3.05		
Efficiency	Male	106	24.47	4.05	2.419	0.016
	Feminine	162	25.65	3.83		
Independence and good behavior	Male	106	26.11	3.23	1.244	0.214
	Feminine	162	26.62	3.25		
The influence	Male	106	24.96	4.2	1.208	0.228
	Feminine	162	25.54	3.6		
Total marks	Male	106	106.61	12.31	1.554	0.121
	Feminine	162	108.95	11.87		

It is clear from Table (8) that there are no statistically significant differences in the total degree of Psychological Empowerment and its sub-dimensions represented in (meaning, independence and good behavior, influence) among graduate students at the College of Education according to the type variable, where the value of the significance level for the dimensions respectively (0.850, 0.214, 0.228), and for the total degree (0.121), all of which are values greater than (0.05), i.e., not statistically significant, and the previous result indicates the convergence of the level of Psychological Empowerment among students male and female about both (meaning, independence, good behavior, influence), and the previous result indicates the convergence of the level of Psychological Empowerment among students. The findings of the present study corroborate those of Al-Dahamsha (2019), indicating no statistically significant differences in psychological empowerment levels among secondary school students based on gender variable, and the result of the current study agreed with the result of the study of Al-Anzi (2021), which found that there were no differences in the level of psychological empowerment among university students according to the gender variable, The result of the current study also agreed with the result of the study (Ali & Al-Sayyid, 2021), which found that there were no differences in the level of psychological empowerment among teachers of gifted students in Jeddah Governorate according to the gender variable, the findings of the current study differed from those of Al-Otaibi's (2022), findings, which showed statistically significant gender-based differences favoring females in psychological empowerment levels among Shaqra University students, and the result of the current study differed from the result of the study (Elamrousy, 2022), which found that males show higher levels of Psychological Empowerment compared to females.

The results in Table (8) showed that there are statistically significant differences at the level of (0.05) in Psychological Empowerment regarding efficiency among graduate students at the College of Education according to the gender variable, in favor of the female study members with an arithmetic mean (25.65) and a standard deviation of (3.83) compared to (24.47) compared to (4.05) for males, and the previous result indicates that female students have a higher level of competence compared to males.

B-Differences According to the Department Variable

Table 9. Kruskal-Wallis test for psychological empowerment by department among education college students.

Dimensions	Department	Number	Average Ranks	Value (H)	Degree of freedom	Significance Level
Meaning	Physical education	40	137.23	2.848	5	0.723
	Special Education	48	124.94			
	Art education	12	153.83			
	Education and psychology	82	142.1			
	Educational leadership	53	129.14			
	Curricula, teaching methods	33	127.8			
Efficiency	physical education	40	160	8.167	5	0.147
	Special Education	48	128.79			
	Art education	12	141.75			
	Education and psychology	82	131.59			
	Educational leadership	53	138.2			
	Curricula, teaching methods	33	110.56			
Independence And Good Behavior	physical education	40	157.15	6.076	5	0.299
	Special Education	48	119.42			
	Art education	12	133.25			
	Education and psychology	82	138.55			
	Educational leadership	53	129.59			
	Curricula, teaching methods	33	127.26			
The Influence	physical education	40	168.2	11.022	5	0.051
	Special Education	48	124.67			
	Art education	12	106.08			
	Education and psychology	82	130			
	Educational leadership	53	137.44			
	Curricula, teaching methods	33	124.74			
Total	physical education	40	162.45	7.415	5	0.192
	Special Education	48	123.38			
	Art education	12	131.33			
	Education and psychology	82	134.11			
	Educational leadership	53	133.97			
	Curricula, teaching methods	33	119.77			

Table (9) shows no statistically significant differences in the total scores of psychological empowerments and its sub-dimensions (meaning, Efficiency, Independence and good behavior, the influence) among graduate students at the College of Education based on the department variable. The significance levels for the dimensions were (0.723, 0.147, 0.299, and 0.051), respectively, and the total score was (0.192), all greater than (0.05), indicating no statistical significance. This suggests similar levels of psychological empowerment across different departments of study in terms of (meaning, efficiency, independence, and influence).

*C-Differences according to the academic level variable***Table 10.** Shows single variance analysis results for psychological empowerment differences by academic level among Education College graduate students.

Dimensions	Total	Sum of squares	Degrees of freedom	Average squares	P value	Significance level
Meaning	Between groups	94.868	3	31.623	3.762	0.011
	Inside groups	2218.994	264	8.405		
	Total	2313.862	267			
Efficiency	Between groups	147.088	3	49.029	3.222	0.023
	Inside groups	4017.584	264	15.218		
	Total	4164.672	267			
Independence and good behavior	Between groups	75.959	3	25.320	2.442	0.065
	Inside groups	2737.235	264	10.368		
	Total	2813.194	267			
the influence	Between groups	288.344	3	96.115	6.900	0.000
	Inside groups	3677.328	264	13.929		
	Total	3965.672	267			
Total marks	Between groups	2137.346	3	712.449	5.112	0.002
	Inside groups	36791.471	264	139.362		
	Total	38928.817	267			

It is clear from Table (10) that there are no statistically significant differences in psychological empowerment regarding Independence and good behavior among graduate students at the College of Education according to the Academic level variable, where the value of Significance level for the dimension was (0.065), which is a value greater than (0.05), i.e., not statistically significant. The previous result indicates the convergence of the level of Independence and good behavior among graduate students at the College of Education Their levels of study.

Table (10) shows significant differences in total marks of psychological empowerment and its sub-dimensions (meaning, efficiency, influence) among Education College graduate students by academic level. In favor of any category of the Academic level variable, the Scheffe test was used, as in the following Table:

Table 11. Schiff test for psychological empowerment differences among Education College students by academic level.

Dimensions	Academic level	N	Arithmetic mean	Standard deviation	Study courses	Thesis	One or more courses with a thesis	Field training with thesis
Meaning	Study courses	66	30.18	2.51	-	-1.1*		-1.9**
	Thesis	135	31.24	3.37	1.1*	-		
	One or more courses with a thesis	32	31.38	2.41			-	
	Field training with thesis	35	32.09	1.76	1.9**			-
Efficiency	Study courses	66	24.06	3.59	-	-1.6**		-1.9*
	Thesis	135	25.66	4.32	1.6**	-		
	One or more courses with a thesis	32	24.63	3.41			-	
	Field training with thesis	35	26	3.03	1.9*			-
the influence	Study courses	66	23.73	3.91	-	-2.3**		-2.5**
	Thesis	135	26.05	3.96	2.3**	-	1.6*	
	One or more courses with a thesis	32	24.5	3.31		-1.6*	-	
	Field training with thesis	35	26.20	2.65	2.5**			-
Total marks	Study courses	66	103.58	11.41	-	-6.2**		-7.8**
	Thesis	135	109.68	12.85	6.1**	-		
	One or more courses with a thesis	32	106.56	11.73			-	
	Field training with thesis	35	111.37	7.53	7.8**			-

Note: * P at (0.05) ** P at (0.01)

It is clear from Table No. (11), which shows the results of dimensional comparisons of the differences in Total marks Psychological empowerment and its sub-dimensions represented in (meaning, Efficiency, the influence) with the difference of the Academic level variable, where it is clear that these differences came between students at the Academic level (Study courses) and students at other academic levels, in favor of students at the Academic level (Field training with thesis) with an arithmetic mean (32.09) and a standard deviation (1.76) for the meaning dimension, and an arithmetic mean (26.0) and a standard deviation (3.03) for the dimension Efficiency, with an arithmetic mean (26.20) and a standard deviation (2.65) for the influence dimension, and an arithmetic mean (111.37) and a standard deviation (7.53) for the overall degree Psychological empowerment, and the previous result indicates that students at the Academic level (Field training with thesis) have a higher level of Psychological empowerment compared to other academic levels, and the result of the current study differed with the result of the study of Al-Enezi (2021), which found that there were no differences in the level of psychological empowerment among university students according to the Academic level variable, and the result of the current study differed with the result of the Al-Otaibi study (2022), Which found that there were no significant psychological empowerment differences among Shaqra University students by academic variable levels.

The third question: Are there statistically significant differences between the average scores of students on the academic self-efficacy scale graduate among students due to variables (gender, department, academic level)?

A-Differences According to the Gender Variable

Table 12. T-test for gender differences in academic self-efficacy among Education College graduate students.

Dimensions	Gender	Number	Arithmetic Mean	Standard Deviation	T Value	Significance Level
Cognitive skills	Male	106	32.98	3.46	0.49	0.625
	Feminine	162	33.21	3.91		
Previous experiences of success and failure	Male	106	24.79	3.58	0.939	0.349
	Feminine	162	25.2	3.37		
Academic context	Male	106	23.3	3	0.872	0.384
	Feminine	162	22.99	2.8		
Academic behavior	Male	106	25.7	2.36	0.127	0.899
	Feminine	162	25.74	2.88		
Organization and time management	Male	106	23.64	3.33	0.541	0.589
	Feminine	162	23.89	3.86		
Total marks	Male	106	130.42	11.92	0.395	0.693
	Feminine	162	131.02	12.65		

It is clear from Table (12) that there are no statistically significant differences in Total marks for academic self-efficacy and its sub-dimensions represented in (Cognitive skills - Previous experiences of success and failure - Academic context - Academic behavior -Organization and time management) among graduate students at the College of Education according to the gender variable, where the value of Significance level for the dimensions respectively (0.625, 0.349, 0.384, 0.899, 0.589), and for the total score (0.693), all of which are values greater than (0.05). That is not statistically significant, and the previous result indicates a convergence of the level of academic self-efficacy in male and female students.

B- Differences according to the variable department

Table 13. Kruskal-Wallis test for academic self-efficacy by department among Education College grads.

Dimensions	Department	Number	Average ranks	Value (H)	Degree of freedom	Significance level
	Physical Education	40	116.60	3.331	5	0.649
	Special Education	48	136.13			
	Art Education	12	138.58			

Cognitive skills	Education and Psychology	82	143.09			
	Educational Leadership	53	135.07			
	Curricula, Teaching Methods	33	130.11			
Previous experiences of success and failure	Physical Education	40	136.50	18.343	5	0.003
	Special Education	48	95.67			
	Art Education	12	107.83			
	Education and Psychology	82	149.57			
	Educational Leadership	53	142.80			
	Curricula, Teaching Methods	33	147.47			
Academic context	Physical Education	40	105.00	13.797	5	0.017
	Special Education	48	118.58			
	Art Education	12	117.83			
	Education and Psychology	82	155.50			
	Educational Leadership	53	141.37			
	Curricula, Teaching Methods	33	147.76			
Academic behavior	Physical Education	40	128.25	3.279	5	0.657
	Special Education	48	126.96			
	Art Education	12	146.5			
	Education and Psychology	82	130.99			
	Educational Leadership	53	149.71			
	Curricula, Teaching Methods	33	132.98			
Organization and time management	Physical Education	40	119.75	10.103	5	0.072
	Special Education	48	114.63			
	Art Education	12	122.25			
	Education and Psychology	82	148.43			
	Educational Leadership	53	131.82			
	Curricula, Teaching Methods	33	155.44			
Total	Physical Education	40	117.45	9.288	5	0.098
	Special Education	48	115.21			
	Art Education	12	113.42			
	Education and Psychology	82	146.57			
	Educational Leadership	53	143.65			
	Curricula, Teaching Methods	33	146.20			

It is clear from Table No. (13) that there are no statistically significant differences in Total marks for academic self-efficacy and its sub-dimensions represented in (Cognitive skills - Academic behavior - Organization and time management) among graduate students at the College of Education according to the variable department, where the value of Significance level for dimensions respectively (0.649, 0.657, 0.072), and for the total score (0.098), all of which are values greater than (0.05), i.e. not statistically significant, and the previous result indicates the convergence of the level of academic Self-efficacy among students in different departments in which they study about (Cognitive skills - Academic behavior - Organization and time management).

The results of Table No. (13) showed that there are statistically significant differences at the level of (0.05) in academic self-efficacy about (Previous experiences of success and failure, Academic context) among graduate students at the College of Education with a variable department in favor of students in the Department of Education and Psychology with an average rank of (149.57) for the previous experiences of success and failure. An average rank of (155.50) for the Academic context dimension, and the previous result indicates that students in the Department of Education and Psychology have a higher level of academic self-efficacy (Previous experiences of success and failure – Academic context).

C-Differences according to the variable Academic level

Table 14. Analysis of academic self-efficacy by academic level among Education College graduate students.

Dimensions	Total	Sum of squares	Degrees of freedom	Average squares	P value	Significance level
Cognitive skills	Between groups	145.867	3	48.622	3.587	0.014
	Inside groups	3578.312	264	13.554		
	Total	3724.179	267			
Previous experiences of success and failure	Between groups	117.166	3	39.055	3.360	0.019
	Inside groups	3068.460	264	11.623		
	Total	3185.627	267			
Academic context	Between groups	40.422	3	13.474	1.633	0.182
	Inside groups	2178.220	264	8.251		
	Total	2218.642	267			
Academic behavior	Between groups	39.462	3	13.154	1.845	0.139
	Inside groups	1882.105	264	7.129		
	Total	1921.567	267			
Organization and time management	Between groups	229.581	3	76.527	6.051	0.001
	Inside groups	3338.718	264	12.647		
	Total	3568.299	267			
Total	Between groups	2142.498	3	714.166	4.890	0.003
	Inside groups	38554.950	264	146.041		
	Total	40697.448	267			

It is clear from Table (14) that there are no statistically significant differences in academic self-efficacy about both (Academic context – Academic behavior) among graduate students at the College of Education according to the variable Academic level, where the value of Significance level for the two dimensions respectively (0.182, 0.139), which is a value greater than (0.05) any non-statistically significant, and the previous result indicates the convergence of academic self-efficacy about both (Academic context – Academic behavior) Graduate students at the College of Education different levels of study.

The results in Table (14) showed that there are statistically significant differences in Total marks for academic self-efficacy and its sub-dimensions represented in (Cognitive skills - Previous experiences of success and failure - Organization and time management) among graduate students at the College of Education with the difference of the Academic level variable, and to know the direction of the differences. In favor of any category of the Academic level variable, the Scheffe test was used, as shown in the following Table:

Table 15. Scheffe test shows academic self-efficacy differences by academic level among Education College graduate students.

Dimensions	Academic level	N	Arithmetic mean	Standard deviation	Study courses	Thesis	One or more courses with a thesis	Field training with thesis
Cognitive skills	Study courses	66	33.36	3.44	-		-1.6*	
	Thesis	135	32.61	3.81		-	-2.3**	
	One or more courses with a thesis	32	34.94	2.75	1.6*	2.3**	-	2.0*
	Field training with thesis	35	32.97	4.31			-2.0*	-
Previous experiences of success and failure	Study courses	66	24.85	3.20	-		-2.0**	
	Thesis	135	24.84	3.33		-	-2.0**	
	One or more courses with a thesis	32	26.81	3.14	2.0**	2.0**	-	
	Field training with thesis	35	24.54	4.25			-2.3**	-
Organization and time management	Study courses	66	24.15	2.85	-	1.2*		
	Thesis	135	22.96	3.74	-1.2*	-	-2.6**	-1.7*
	One or more courses with a thesis	32	25.56	3.66		2.6**	-	
	Field training with thesis	35	24.69	3.92		1.7*		-
Total	Study courses	66	131.55	10.83	-		-6.2*	
	Thesis	135	128.76	11.77		-	-9.0**	
	One or more courses with a thesis	32	137.75	9.99	6.2*	9.0**	-	7.0*
	Field training with thesis	35	130.77	16.52			-7.0*	-

Note: * P at (0.05) ** P at (0.01)

It is clear from Table No. (15), which shows the results of dimensional comparisons of the differences in Total marks for academic self-efficacy and its sub-dimensions represented in (Cognitive skills - Previous experiences of success and failure - Organization and time management) with the difference of the Academic level variable, where it is clear that these differences came between students at Academic level (One or more courses with a thesis) and students at other academic levels, in favor of students at Academic level (One or more courses with a thesis) with an arithmetic average of (34.94). With a standard deviation (2.75) for the cognitive skills dimension, with an arithmetic mean (26.81) and a standard deviation (3.14) for the previous experiences of success and failure dimension, with an arithmetic mean (25.56) and a standard deviation (3.66) for the Organization and time management dimension, and with an arithmetic mean (137.75) and a standard deviation (9.99) for the total degree of academic self-efficacy, and the previous result indicates that students at the Academic level (One or more courses with a thesis) have a higher level of academic self-efficacy compared to other academic levels.

Fourth question: Does psychological empowerment contribute to predicting academic self-efficacy among graduate students?

Table 16. Shows multiple regression predicts academic self-efficacy via psychological empowerment among graduate students at the College of Education.

Future variable (Psychological empowerment)	Dependent variable (academic self-efficacy)				
	Value B	Standard error	Beta values	T values	Moral level
Constant	46.113	4.283		10.001	0.001
meaning	2.557	0.128	0.773	19.895	0.001
Efficiency	2.713	0.143	0.759	19.013	0.001
Independence and good behavior	2.904	0.193	0.678	15.043	0.001
the influence	3.367	0.192	0.732	17.504	0.001
Total marks	2.696	0.125	0.798	21.629	0.001
P value = 83.299 Significance level = 0.001 Correlation coefficient = 0.507 Coefficient of determination = 0.360					

It is clear from Table (16) that it can be said that the Multiple Regression model for the relationship between Psychological empowerment as an independent variable and academic self-efficacy as a dependent variable has high statistical significance, as indicated by the value of the (F) test (83.299), and its significance level (0.001), which is less than Significance level ($\alpha = 0.05$), which means that the model with its independent variables is valid for predicting the values of the dependent variable, as confirmed by the value of Correlation coefficient (0.507), which indicates a statistically significant direct correlation between Psychological empowerment and academic self-efficacy.

The coefficient of determination R² (0.360) shows psychological empowerment, which explains (36.0%) of academic self-efficacy variation among Education College graduate students; the rest is due to other factors.

Table 16 shows a significant psychological empowerment effect on academic self-efficacy among College of Education graduate students (Significance level = 0.001), This suggests that changes in psychological empowerment significantly impact academic self-efficacy levels.

According to Aloysius (2013), finds that high psychological empowerment enhances academic performance and relationships with university staff, offering greater academic freedom despite initial study challenges that may evoke feelings of inadequacy.

The Results of the Study

1- Psychological empowerment among graduate students at King Faisal University's College of Education ranks highest with meaning, followed by independence and good behavior. Influence ranks third, with efficiency as the lowest dimension. Academic self-efficacy among these students ranks highest in cognitive skills, followed by academic behavior. Previous successes and failures rank third, with organization and time management fourth, and the academic context ranks lowest in self-efficacy dimensions.

2- There are no statistically significant gender differences in the total degree of psychological empowerment and its sub-dimensions (meaning, independence, good behavior, influence) among college graduate students. However, females show statistically significant ($p < 0.05$) higher Efficiency scores in Psychological Empowerment.

3- In the College of Education, there are no statistically significant differences in Psychological Empowerment and its sub-dimensions (meaning, efficiency, independence, behavior, influence) among graduate students based on department. At the academic level, there are no significant differences in psychological empowerment regarding independence and behavior among graduate students. However, statistically significant differences favor students engaged in field training with thesis are Psychological Empowerment and its dimensions (meaning, efficiency, impact).

4- Graduate students at the College of Education have no statistically significant differences in total marks for academic self-efficacy and its sub-dimensions (Cognitive skills, Previous experiences of success and failure, Academic context, Academic behavior, Organization, and time management) based on gender or department. However, statistically significant differences (0.05) favor students in the Department of Education and Psychology concerning Previous experiences of success and failure and Academic context. as There are no statistically significant differences in academic self-efficacy regarding Academic context and Academic behavior among graduate students at the College of Education by academic level. However, significant differences exist in total scores for academic self-efficacy and its sub-dimensions (Cognitive skills, Previous experiences of success and failure, Organization, and time management), favoring students at the academic level (one or more courses with a thesis).

5- There is an apparent psychological empowerment effect on academic self-efficacy among graduate students at the College of Education (36.0%).

Study Recommendations

1. Promote psychological empowerment among College of Education graduate students for enhanced academic self-efficacy through training and counseling.
2. Investigate how psychological empowerment impacts the academic quality of life for College of Education graduate students.
3. Explore the relationship between academic self-efficacy and coping strategies under pressure among College of Education graduate students.

Declarations

Conflict of interest as a single author, I would like to confirm that there are no known conflicts of interest associated with this publication and that the study declares no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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