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*The effectiveness of the rational emotive therapy in
improving academic self-efficacy and reducing
academic procrastination among students of Hail
University*

BY

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Abstract

The aim of this study was to investigate the effect of a therapeutic program based on rational emotive therapy in raising the level of academic self-efficacy and reducing academic procrastination among the students of Hail University. A measure of academic self-efficacy and academic procrastination was developed to achieve the objectives of this study. The study sample consisted of (48) female students who were randomly selected, the ages of the students ranged between 18-22, with a mean (20.08) and a standard deviation (1.03). This study applied the treatment program based on rational emotive therapy to the experimental group, while the control group did not receive any treatment.

The results of this study reveal a high level of academic self-efficacy and a shred of strong evidence to have a decrease in the level of academic procrastination among the experimental group. Furthermore, there is statistically significant evidence at the level of significance ($\alpha = 0.05$) in both the post-measurement and follow-up compared to the control group.

In light of the results, the study recommends Universities offer training workshops and programs aimed at enhancing students' academic self-efficacy and interest in presenting various activities aimed at researching and addressing the causes of academic procrastination among them.

Keywords: Rational emotive therapy, academic self-efficacy, Academic procrastination, students of Hail University.

فاعلية العلاج العقلاني الانفعالي في تحسين الفاعلية الذاتية الأكاديمية وخفض التسويف الأكاديمي لدى طالبات جامعة حائل

الملخص

هدفت الدراسة الحالية إلى استقصاء أثر برنامج علاجي قائم على العلاج العقلاني الانفعالي في تحسين الفاعلية الذاتية الأكاديمية وخفض مستوى التسويف الأكاديمي لدى عيّنه من طالبات جامعة حائل. ولتحقيق أهداف الدراسة تم تطوير مقياس للفاعلية الذاتية الأكاديمية وآخر للتسويف الأكاديمي، كما تكونت عينة الدراسة من (٤٨) طالبة تم اختيارهن بطريقة عشوائية؛ تراوحت اعمار الطالبات ما بين ١٨-٢٢ بمتوسط حسابي (٢٠.٠٨) وانحراف معياري (١.٠٣)، وتم تقسيمهن عشوائياً إلى مجموعتين: مجموعة تجريبية، ومجموعة ضابطة. وقد تم تطبيق برنامج علاجي قائم على العلاج العقلاني الانفعالي على المجموعة التجريبية، في حين لم تتلق المجموعة الضابطة أي معالجة.

وقد كشفت نتائج الدراسة عن ارتفاع في مستوى الفاعلية الذاتية الأكاديمية وانخفاض في مستوى التسويف الأكاديمي لدى أفراد المجموعة التجريبية، وبشكل دال إحصائياً عند مستوى الدلالة ($\alpha = 0.05$) في كل من القياسين البعدي والمتابعة مقارنة بالمجموعة الضابطة. وفي ضوء نتائج الدراسة توصي الباحثة بضرورة تقديم الجامعات للورش التدريبية والبرامج الهادفة إلى التعزيز من الفاعلية الذاتية الأكاديمية، والاهتمام بتقديم الأنشطة المختلفة الهادفة إلى البحث عن أسباب التسويف الأكاديمي ومعالجتها لدى الطلبة.

الكلمات المفتاحية: العلاج العقلاني الانفعالي- الفاعلية الذاتية الأكاديمية-

التسويف الأكاديمي- طالبات جامعة حائل.

Introduction

Human societies in general and the Arab world, in particular, have witnessed tremendous scientific developments in a short period and at an accelerated pace, which resulted in a change in the methods of learning and teaching. Access to information takes only a few minutes, if not seconds, and that leads to having a variety of communication methods. As well as facilitating the exchange of information and experiences between the teacher and the student and the students themselves, not to mention the effects of this tremendous progress on various aspects of economic, social and cultural life. However, despite the progress and the effects of positive results but, we can't deny or ignore the negative dimensions of this progress. The availability of information and the low costs to extract such of information, have led many to postpone the performance of their academic duties, which often, resulted in a decline in academic self-efficacy. Both of these problems have a significant impact on the educational process. The results of which are measured through academic achievement.

Bandura (1977) identifies self-efficacy as the ability of the individual to perform necessary work to achieve outstanding levels of performance. According to Hallian & Danahaer (1994), self-efficacy is the confidence of individuals in their ability to perform in various areas, also indicates that the individual has a great knowledge of himself if he can achieve the goal. Kirsch (1985) argue that self-efficacy is the person's confidence in his ability to conduct behavior away from the conditions of reinforcement. Academic self-efficacy is also largely influenced by the excessive use of the Internet, as demonstrated by the Odaci (2011) study, which shows a negative relationship between excessive and worrisome use of the Internet and academic self-efficacy.

It is worth mentioning that there is a direct relationship between academic self-efficacy and academic achievement, since individuals' awareness of their self-efficacy affects their academic performance. For instants, Students who are highly aware of their academic effectiveness when facing a difficult task do their best and show little concern about assignments, also demonstrate great flexibility in the use of learning strategies, have self-structured learning, and high accuracy in the self-evaluation of their academic performance, with high internal motivation towards their academic duties (Alwan and Mahasna, 2011).

Many students are now delayers (Ellis & Knaus, 1977, O'Brien, 2002). Lay (1986) defines procrastination as the irrational tendency to delay the tasks to be accomplished. Wolters (2003) defines academic procrastination as the failure to perform an activity at the desired time and delay it until the last minute, and this activity must be completed to the satisfaction.

Al-Anzi and Al-Daghim (2003) note that the problems of procrastination among learners are the delay in completion or delivery of study duties on time, the weak preparation for examinations, and studying for a few insufficient hours. According to Özer and Ferrari (2011), research has shown that procrastination is one of the biggest risks to the academic performance of students at every stage of their academic lives. Milgram, Batori & Mowrer (1993) argue based on literature studies focused on procrastination among university students, that (70%) of them are delayers in their academic assignments, they also emphasized that school students are in the problem of procrastination as university students, also, procrastination may have many types, we can find it in academic tasks, daily routine life tasks, and even in decision-making.

There are numerous reasons for procrastination; According to Szalavitz (2003), Procrastination is due to one of the following reasons: the pursuit of perfectionism, false beliefs, fear of failure, weakness of self-control, the anxiety of accomplishment, depression, and the suffering of an ascendant father. Gard (1999) explained that Procrastination has several reasons, including prioritizing the most enjoyable tasks over the most important tasks, the pursuit of perfectionism, weakness in the skill of time management, evasion of difficult and boring tasks, and fear of failure.

Rational emotive therapy:

Albert Ellis was influenced by earlier philosophers more than other psychologists, primarily Epictetus, the Roman philosopher who said that "men are not disturbed by things, but because of their opinions about them" (Ellis & Bernard, 1985; Dryden & Neenan, 2004). Rational therapy focused mainly on cognition and did not care at first about the role played by emotion in the therapeutic process. However, the name of this therapy was later referred to as rational-emotional therapy (RET) in 1961 and from then it was officially recognized (Diguiseppe, 2007). Moreover, in 1993, the name was changed to rationalized behavioral

therapy (REBT), where the practitioners of REBT urged their clients to transform what they learn into behavior during therapy (Dryden & Neenan, 2004; Weinrach et al, 2003).

According to Ellis, these three factors interact dynamically to change the individual; if a change occurs in the cognitive aspect of the individual, the other emotional and behavioral aspects will change (Ellis, 1994; Ellis, Shaughnessy & Mahan, 2003). Consistent with REBT, ideas are the main factor of individual happiness and unhappiness (Walen, DiGiuseppe & Dryden, 1999). The rigid thoughts and beliefs used by the individual in times of hardship and adversity are the main cause of various disorders such as anxiety, depression, anger, and other disorders (Dryden, 1999).

Many studies have dealt with the topics of academic self-efficacy and academic procrastination, and the following is a presentation of the most important ones, ranked from newest to oldest:

In (Goroshit, 2018), the study aimed at finding the relationship between academic procrastination, participation in online courses, achievement, and final marks of students; In an attempt to develop a means of handling procrastination. The study revealed the negative correlation between academic procrastination and participation in courses, and revealed a strong negative correlation between academic procrastination and the final test scores for students. There is also a strong positive correlation between participation in online training courses and final test scores for students.

According to a study by (Swaraswati, Winarno, & Goeritno, 2017), which aimed to study the relationships between academic self-efficacy and the five major personality traits (extinction, acceptability, diligence, neuroticism, and openness), as a result of academic procrastination of the undergraduate students. The study sample consisted of (207) university students in Semarang city in Indonesia. The results showed that academic self-efficacy and the five major personality traits predicted academic procrastination significantly. The correlation analysis revealed that academic self-efficacy, excitement, and neuroticism emerged as predictors of academic procrastination among undergraduate students. Furthermore, neuroticism and extrapolation both had a significant positive relationship, while there was no relationship between other personality traits (acceptability and openness) and academic procrastination.

In (Certel, & Kozak, 2017), the study aimed to reveal the relationship between the internal and external academic control center, the academic procrastination, and the academic self-efficacy of students participating in university sports in Antalya, Turkey, the study sample consisted of (302) athletes. The results of the study revealed a significant relationship between the internal and external academic control center and academic procrastination and the academic self-efficacy of the students. The greater the academic external control, the greater the level of academic procrastination, And the greater the internal academic discipline, the greater the academic self-efficacy, which indicates that the high level of academic self-efficacy is inversely proportional to the high level of academic procrastination among students.

The study of (Abu Zureik and Jaradat, 2013), Which aimed at investigating the effect of modifying the self-expression that causes academic procrastination to reduce the level of academic procrastination and raise the level of academic self-efficacy in a sample of 33 students from the tenth grade in Al-Shajara city in Jordan. Who were randomly divided into two groups: the experimental group, and the control group, using two measures for academic procrastination and the other for academic self-efficacy, the results of the study revealed a statistically significant effect of the experimental program. The level of academic procrastination among the students decreased. The experimental group showed a statistically significant improvement in the level of academic self-efficacy compared to the control group in both the post-measurement and follow-up.

Another study (Shright and Abdulla, 2008) aimed to identify the relationship between academic procrastination and motivation for achievement and self-efficacy. The study sample consisted of (538) sixth-grade students in Alexandria Governorate. The results of the study showed that there are statistically significant differences between the average score of students with low academic and high academic procrastination, in motivation for achievement and self-efficacy in favor of those with low procrastination.

Seo (2008) examined the goal of finding the relationship between self-perfection and academic procrastination and the effect of self-efficacy on that relationship. The study sample consisted of (692) university students. The results of the study revealed that self-efficacy mediates the relationship between self-perfection and academic

procrastination. Self-efficacy negatively affects academic procrastination. The pursuit of self-perfection leads to academic procrastination.

According to Haycock, McCarthy, and Skay's (1998) study, which aimed to examine the procrastination among university students and the role of self-efficacy, in precisely to investigate the relationship between procrastination and the beliefs of effectiveness. The study was conducted on a sample of (141) university students. The results of the study indicated that there are clear negative effects of the beliefs of self-efficacy on academic procrastination.

Comment on previous studies:

The majority of previous studies revealed the negative correlation between academic procrastination and academic self-efficacy and achievement, as shown by Swaraswati, Winarno, & Goeritno (2017), Certel & Kozak (2017) and also, Shright and Abdulla (2008), Seo (2008), Haycock, McCarthy, and Skay (1998). These findings reinforce the notion that academic procrastination is a major impediment to students' academic performance and results, and illustrates the need to develop and study academic interventions for academic adjudication as a means of reducing academic outreach and reducing negative impacts. The review of these studies also shows us the scarcity of Arab studies that focused on conducting studies aimed at trying therapeutic programs to treat the phenomenon of academic procrastination and raising the level of self-efficacy, according to the best knowledge of the researcher.

The study problem:

Since academic achievement is the most important indicator in demonstrating the achievement of educational goals, and because the first building blocks of any country are the young people, particularly young people educated. Moreover, because of what is imposed by the current reality in line with the enormous technological revolution witnessed by the world, they are an integral part of our daily reality, which has been accompanied by enormous social, economic, and intellectual changes. Besides the pros of this scientific progress, there have been some negative phenomena, such as constant preoccupation with the means of communication and neglect of various daily duties, or

relying on them to accomplish the tasks, which negatively affects the academic achievement of students and leads to the phenomenon of academic procrastination, delay completion of academic tasks or study to late Before the exam.

The researcher found the connection of the phenomenon of academic procrastination with the academic self-efficacy of the students by reviewing the theoretical literature on the subject; As studies by (Certel, & Kozak, 2017), (Shright and Abdulla, 2008), (Seo, 2008), (Haycock, McCarthy & Skay, 1998), by which a positive outlook on self is an important predictor of students' academic achievement and raises their level of interest in their academic assignments. The researchers were interested in the concept of self-efficacy because of its pivotal and important role in positive human behavior in general and academic in particular, such as Jonson-Reid (Davis, Saunders, Williams & Williams, 2005), which revealed a positive correlation between self-efficacy, achievement, and achievement in Academic studies.

In addition, through the researcher's review of the theoretical literature on the subject, there was a scarcity in the Arab studies that examined the therapeutic programs aimed at treating this phenomenon, and because the phenomenon of academic procrastination directly affects the educational outputs and negatively affects the achievement of the university professor and satisfied with it;

Therefore, this study came to answer the following questions:

1. Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the academic self-efficacy between the average of the experimental group and the control group in the telemetry?
2. Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the academic self-efficacy between the average scores of the experimental group and the control group in the follow-up measurement?
3. Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in academic procrastination between the experimental group and the control group?
4. Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in academic procrastination between the average of the experimental group and the control group in the measurement of follow-up?

Objectives of the study:

The present study aimed to uncover the effectiveness of an instructional program based on rational emotive therapy in raising the level of academic self-efficacy and reducing academic procrastination in the eye of the students of Hail University.

The importance of the study:

- The importance of this study stems from the importance of the category of university youth, who represent the basic building blocks of society and its progress. It is their responsibility to reach their highest level of society and culture. Therefore, research on the difficulties related to achieving their goals, raising their ability to perform their roles is critical.
- In addition, the study is of great importance because of the importance of the subject itself; since academic procrastination is closely linked to the effectiveness of academic self-subject, as the objectives pursued by the educational process are measured and evidenced by the achievement of academic achievement of students, and the academic delay and low academic effectiveness of the student impede the process of measuring these goals and thus prevent the arrival of the educational process to the goal, and the teacher signed in a confusing position during his work.

Study terminologies:

- Rational emotive therapy: one of the therapeutic methods, based on the theory of Alice, who believes that the methods of thinking wrong and irrational is the cause of the behavior of turbulent, and aims to change the methods of thinking wrong and irrational and replace them with healthier and rational ways.
- **Academic Self-efficacy: Academic self-efficacy is defined as the student's confidence in his ability to succeed in challenging academic tasks (Elias, 2008).**
- **The procedural definition: The student's beliefs about his\her ability to complete the required academic assignments, which is**

measured by the degree to which the student obtains on the scale of academic self-efficacy.

- Academic procrastination: Academic procrastination delays academic tasks as a result of the contradiction between intention and action, which reflects negative consequences on the respondent (Binder, 2000).
- The procedural definition: It is the postponement of the student to finish the required academic duties until the last moment, which is measured by the degree obtained by the student on the scale of academic procrastination.

Study limitations:

Objective limits: This study is limited to investigating the effect of a therapeutic program based on Rational emotive therapy in raising the level of academic self-efficacy and reducing academic procrastination among the students of Hail.

Institutional limits: Hail University

Temporal limits: a sample of female students of Hail University who were enrolled in the second semester of 2018/2019.

Methodology of the study:

The experimental method was used to identify the effect of rational emotive therapy in raising the level of academic self-efficacy and reducing academic procrastination among students of Hail University in Saudi Arabia.

The study population:

The study population consisted of all female students of Hail University, who numbered approximately 20,000 students, who enrolled in the second semester of 2018/2019, from all university faculties.

The study sample:

The sample of the study consisted of (48) students who were selected based on the results of the grades of the study members on the measures of academic self-efficacy and academic procrastination who agreed to participate in the study, the ages of students ranged between 18-22, with a mean (20.08) and a standard deviation (1.03). They were randomly divided into two experimental groups composed of (23) students and a group of 25 students, and the experimental group was subjected to a treatment program consisting of (14) sessions, while the control group was not subjected to any treatment.

Study measurements:

First: A program based on Rational emotive therapy to improve academic self-efficacy and reduce the level of academic procrastination: The researcher worked on the preparation of this program (rational emotional counseling program) to modify the irrational ideas associated with academic procrastination and the lack of academic self-efficacy among the students of Hail University. The program took six weeks and consisted of (14) treatment sessions, (90) minutes. The program was implemented in group sessions at the Faculty of Education. The follow-up to the program took two months, and the program has been implemented through several stages divided into (14) of the extension sessions, as follows:

Stage 1: The start-up stage, the stage during which the acquaintance and building of the guiding relationship between the mentor and the examinees, and the interviewees themselves, and clarify the objectives of the program, and how the program will be implemented.

Stage 2: is the transition stage, where it highlights the main problem experienced by the members of the group; it is here (academic procrastination, lack of academic self-efficacy) and the importance of rational emotive therapy in helping to get rid of the problem through the second session and the third.

Stage 3: is the working stage. At this stage, the techniques of Rational emotive therapy are practiced; by identifying the irrational thoughts related to the problem, by trying to explain the shortcomings and errors in them, and by replacing them with more rational ideas and

acquiring cognitive methods that help to eliminate the problem, out of these strategies and methods (imagination, transformation, homework) was done at meetings 4-13.

Stage 4: Termination. This phase aimed to identify the extent to which the objectives of the therapeutic program were achieved, to re-apply the measures of academic procrastination and academic self-efficacy, and thus to compare the effectiveness of the therapeutic program with the experimental group compared to the control.

Second: Self-efficacy measure: To achieve the objectives of the study, the researcher worked on the preparation of a measure of self-efficacy after reviewing many of the standards prepared for this goal, such as McLain (2012), Schwarzer (1995), and Al-Otaibi scale (2007), where the scale is in the final form of (21) paragraphs (14 positive paragraphs and 7 negative paragraphs) (paragraphs 1, 5, 8, 9, 10, 12, 17) As follows: always 5 degrees, often 4, sometimes 3, rarely 2, never 1.

To extract the semantics of the construction accuracy of the scale, the correlation coefficients of the paragraphs were extracted with the total score in a survey sample from outside the study sample, which consisted of (40) female students. The correlation coefficients with the tool as a whole ranged between 0.39-0.73, as in Table 1.

**Table (1)
Correlation coefficients between Paragraphs and total score**

Paragraphs number	Coefficient of correlation With the tool	Paragraphs number	Coefficient of correlation With the tool
1	** .54	12	** .51
2	** .72	13	* .39
3	** .65	14	* .43
4	** .58	15	** .55
5	** .57	16	* .41
6	** .56	17	* .43
7	** .55	18	* .44
8	** .72	19	** .73
9	** .62	20	** .53
10	** .53	21	** .63
11	** .63		

* Statistical function at the level of significance (0.05).

** Statistical function at the level of significance (0.01).

It should be noted that all correlation coefficients were of acceptable rank and statistical function, so none of these paragraphs were deleted.

Stability of the effectiveness measure:

To ensure the stability of the study instrument, the test-retest was verified by applying the standard and reapplying it after two weeks to a group outside the study sample of 40 students. Therefore, (Pearson correlation) coefficient was calculated between their estimates at both times. (0.87). the stability coefficient was also calculated in the internal consistency method according to the equation of Kronbach Alpha (0.77). These values were considered suitable for this study.

Third: the measure of academic procrastination: where the researcher worked on the development of a measure of academic procrastination after reviewing so many measures used as a measure (Abu Ghazal, 2012; Abu Zureik and Jaradat, 2013; Lay, 1986). So the final version of this developed measure will be of 21 paragraphs following a quadratic scale of 1-4.

The construction validity of the scale:

To extract the semantics of the validity of the construction of the scale, the coefficients of the correlation of the paragraphs with the total score were extracted on a survey sample from outside the sample of the study which consisted of (40) students. The correlation coefficient here is a sign of truth for each paragraph in the form of a correlation coefficient between each paragraph and the total score. The correlation coefficients with the instrument as a whole ranged from 0.39-0.72, as shown in Table 2.

Table (2)
Correlation coefficients between Paragraphs and total score

Paragraphs number	Coefficient of correlation With the tool	Paragraphs number	Coefficient of correlation With the tool
1	*.39	12	** .64
2	** .72	13	** .63
3	** .61	14	*.48
4	** .54	15	** .53
5	** .53	16	** .65
6	*.42	17	** .61
7	** .61	18	** .52
8	** .70	19	** .52
9	*.41	20	** .52
10	** .66	21	** .65
11	** .61		

* Statistical function at the level of significance (0.05).

** Statistical function at the level of significance (0.01).

It should be noted that all correlation coefficients were of acceptable rank and statistical function, so none of these paragraphs were deleted.

Stability of the measurement

To ensure the stability of the study instrument, the test-retest was verified by applying the standard and reapplying it after two weeks to a group outside the study sample of 40 students. Therefore, (Pearson correlation) coefficient was calculated between their estimates at both times. (0.85). The stability coefficient was also calculated in the internal consistency method according to the equation of Kronbach Alpha (0.79). These values were considered suitable for this study.

Groups' equivalence: Academic self-efficacy, Academic procrastination:

To verify the equivalence of the groups, the arithmetical averages and the standard deviations were obtained of the Academic self-efficacy, Academic procrastination according to the group variable (experimental, control). To illustrate the statistical differences between the arithmetic averages, the T-test was used, as in Table 3.

Table (3)

The standard averages, the standard deviations and the T test according to the group variable for academic self-efficacy, and academic procrastination

	the group	The numbers	SMA	standard deviation	T values	Degrees of freedom	Statistical significance
Self - efficacy academic tribal measurement	Experimental	23	2.49	.263	.598	46	.553
	Controlling	25	2.44	.278			
Academic tribal procrastination	Experimental	23	2.10	.258	.144	46	.886
	Controlling	25	2.09	.303			

Table (3) shows that there are no statistically significant differences at the level of significance ($\alpha = 0.05$) attributed to the group (experimental, control) in academic self-efficacy and academic procrastination.

Results and discussion of the study:

The main findings of the study are presented as follows:

Question 1: Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the academic self-efficacy between the experimental group and the control group?

To answer this question, the arithmetical averages and standard deviations of academic self-efficacy were extracted according to the group variable (experimental, control). To illustrate the statistical differences between the arithmetic averages, the T-test was used, as in Table 4.

Table (4)

Standard Meanings, Standard Deviations and T Test according to Group Variable (Experimental, Controlling), on Academic Self-efficacy in Telemetry

	the group	The numbers	SM A	standar d deviatio n	T values	Degrees of freedo m	Statistical significance
Academic procrastination in Telemetry	Experiment al	23	3.36	.264	10.623	46	.000
	Controlling	25	2.55	.276			

Table (4) shows that there are statistically significant differences ($\alpha = 0.05$) due to the group variable (experimental, control) in academic self-efficacy.

The results showed there was a statistically significant difference in academic self-efficacy due to the experimental and control variables in the academic self-efficacy of post-measurement in favor of the experimental group. The level of academic self-efficacy was statistically significant among the experimental group, in raising the level of academic self-efficacy among students, which was based on the rational emotional treatment of emotional in the adjustment of irrational ideas related to the academic self-efficacy of students, and replaced by another rational, Thus the therapeutic program has had a statistically significant impact on female students in reducing academic procrastination and raising the level of academic self-efficacy, which **also indicates the negative correlation between the high level of academic self-efficacy and the level of academic procrastination. The higher the academic self-efficacy, the lower the level of procrastination, This was confirmed by (Bandura, 1977., Elias, 2008), where they emphasized the importance of academic self-efficacy in accomplishing academic tasks, and achieving distinct levels of performance, Alwan and Mahasna (2011) also emphasized the direct link between academic self-efficacy and academic achievement, as students with academic self-efficacy have a high ability to self-organize and a high motivation towards performing their academic duties.**

The results of the study are consistent with the results of the Abu Zureik and Jaradat (2013) study, which revealed a statistically significant effect of the experimental program. The level of academic procrastination among the students decreased. The experimental group showed a statistically significant improvement in the level of academic self-efficacy compared with the control group in both the post- and follow-up. It also shows a consistency with the study of (Certel, & Kozak, 2017), which showed that the high level of academic self-efficacy is inversely proportional to the high level of academic procrastination among students, and with (Shright and Abdulla, 2008), Which showed a negative correlation between academic procrastination and self-efficacy, and is consistent with the study (Seo, 2008), which revealed that self-efficacy negatively affects academic procrastination,

and with (Haycock, McCarthy & Skay, 1998) whose results indicated negative effects explicit self-efficacy beliefs on academic procrastination.

Question γ : Are there statistically significant differences at the level of ($\alpha = 0.05$) in the academic self-efficacy between the average of the experimental group and the control group in the measurement of follow-up?

To answer this question, the arithmetical averages and standard deviations of academic self-efficacy were extracted in the follow-up measure according to the group variable (experimental, control). To illustrate the statistical differences between the arithmetic averages, the T-test was used as in Table 5.

Table (5)

The mean, standard deviations and T test according to the group variable on academic self-efficacy in measuring follow-up.

	the group	The numbers	SM A	standard deviation	T values	Degrees of freedom	Statistical significance
Academic procrastination in follow-up	Experimental	23	3.41	.245	12.241	46	.000
	Controlling	25	2.52	.270			

Table (5) shows statistically significant differences ($\alpha = 0.05$) due to the group variable in academic self-efficacy in measuring follow-up. The differences were in favor of the experimental group.

The results showed that there were statistically significant differences in academic self-efficacy due to the group variable (experimental and control) in the follow-up measurement. The results showed that the level of academic self-efficacy continued to rise in the experimental group members; this indicates that students continue to be affected by the remedial program to reduce their level of academic procrastination and to raise the level of academic self-efficacy. Thus, students have felt the positive impact of the program on themselves and their lives, and have been satisfied with that effect; That is, taking the principle of seriousness, firmness, and trust concerning the vision of their academic missions, and the consideration of their effectiveness.

Question 3: Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in academic procrastination between the experimental group and the control group?

To answer this question, the arithmetical averages and standard deviations of the academic assignment were extracted according to the group variable (experimental, control). To illustrate the statistical differences between the arithmetic averages, the T-test was used, as in Table 6.

Table (6)
Standard Meanings, Standard Deviations and T Test according to Group Variable (Experimental, Control) on Academic Procrastination in in Telemetry

	the group	The numbers	SM A	standard deviation	T values	Degrees of freedom	Statistical significance
Academic procrastination in Telemetry	Experimental	23	1.58	.282	-5.234	46	.000
	Controlling	25	2.04	.329			

Table 6 shows statistically significant differences ($\alpha = 0.05$) attributed to the group (experimental, control) in the post-measurement of academic delay, and the differences were in favor of the experimental group.

The results of this study show that there are statistically significant differences between the experimental and control groups in academic procrastination for the experimental group. The level of academic procrastination has decreased among its members. This confirms the effectiveness of the therapeutic program, which aims to reduce the level of academic procrastination and enable students to change irrational ideas settled in their minds about the performance of academic tasks more rationally. This is consistent with what the study aimed at reducing the level of academic procrastination because it has dangerous negative effects on the academic performance of students, whether they are at the university or school level, as emphasized by Özer & Ferrari (2011), and the negative effects of procrastination are not limited to academic life, but extend to Daily routine tasks (1993

Milgram, Batory & Mowrer,)), and therefore reducing its level has a positive impact on all aspects of an individual's life.

The results of this study are consistent with the results of the Abu Zureik and Jaradat (2013) study, which revealed a statistically significant effect of the experimental program. The level of academic procrastination among the students decreased. The experimental group showed a statistically significant improvement in the level of academic self-efficacy compared to the control group in both the post- and follow-up. It also is consistent with the study (Certel, & Kozak, 2017), (Shright and Abdulla, 2008), (Seo, 2008), (Haycock, McCarthy & Skay, 1998).

Question 4: Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the academic procrastination between the average of the experimental group and the control group in the measurement of follow-up?

To answer this question, the arithmetical averages and standard deviations of academic procrastination were extracted in the follow-up measure according to the group variable (experimental, control). To illustrate the statistical differences between the arithmetic averages, the T-test was used, as in Table 7.

Table (7)

Standard Meanings, Standard Deviations and T Test according to the Group Variable (Experimental, Regulator) on Academic Procrastination in Measuring Follow-up

	the group	The numbers	SM A	standard deviation	T values	Degrees of freedom	Statistical significance
Academic procrastination in follow-up	Experimental	23	1.53	.259	-6.323	46	.000
	Controlling	25	2.05	.324			

Table (7) shows that there are statistically significant differences ($\alpha = 0.05$) due to the group variable in academic procrastination in measuring follow-up.

The results of the second question indicate that the level of academic procrastination among the experimental group remains relatively low compared to the control group. This indicates the continued effectiveness of the therapeutic program among the experimental group and the

revision of irrational ideas related to the academic delay of the students, and the replacement of it with rational. The students were stressed during the therapeutic program on the importance of replacing irrational ideas based on their minds with rational ones, and that this must continue after the end of the therapeutic program, and affect the lives of students. Moreover, the results indicate the effectiveness of the program to students implying that they have the positive impact that the program has left on them, thus replacing irrational ideas with rational ideas about completing the teaching tasks.

Consequently, the therapeutic program had an effective effect on improving the level of self-efficacy of the students, which was aimed at this study.

Recommendations:

In light of the findings of the study, the researcher recommends the following:

- Universities offer training workshops and programs aimed at enhancing students' academic self-efficacy.
- Interest in presenting various activities aimed at researching and addressing the causes of academic procrastination among students.

Suggestions:

- Conduct more studies to treat academic procrastination and raise the level of academic self-efficacy.
- Conduct more similar treatment programs on younger age groups to avoid exacerbating the problem in the more advanced stages of schooling.
- Conducting more studies aimed at raising the level of academic self-efficacy among students because of the impact of the level of self-efficacy on the performance and completion of academic tasks.

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