



Academic Success Skills, Realistic Thinking, and their Relationship with Academic Achievement among Students of the Technical Medical Institute - Baghdad in the Subject of Physiology

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ABSTRACT

The current research aims to identify academic success skills and realistic thinking and their relationship with academic achievement among students of the Medical Technical Institute – Baghdad in the subject of registration, as well as to identify the significance of statistical differences in academic success skills and realistic thinking and their relationship with academic achievement among students according to the gender variable (males - females). To achieve the research objectives, the researcher followed the correlational descriptive method. The research community consisted of 89 male and female instructors of the Medical Technical Institute – Baghdad. As for the research tools, they consisted of two instruments: the Dennis Scale (Dennis, 2016), translated and adapted by Razak (2022) to measure academic success skills, which comprises 32 items distributed across five skills: focus, communication, goal setting, time management, and test preparation. Each item has five alternatives applicable to respondents in the form of (always, often, sometimes, rarely, never) with weights (5, 4, 3, 2, 1) since all items of the scale are positively oriented. The second tool was a Realistic Thinking Scale constructed by the researcher, consisting of 28 items, with five alternatives applicable to (always, often, sometimes, rarely, never) .

And after verifying the apparent validity, construct validity, and reliability using the Cronbach's alpha and test-retest methods, the scale was applied to students of the Technical Medical Institute – Baghdad, which consisted of (89) participants, including (47) male instructors and (42) female instructors. After processing the data using the t-test and Pearson correlation coefficient .

In continuation of the aspects related to this research, the researcher has come up with the following recommendations :

Relevant authorities should train students in academic success skills and realistic thinking in order to improve students' academic performance.

Keywords: Academic Success Skills, Realistic Thinking, Academic Achievement.



Research problem :

One of the requirements of the twenty-first century we live in is scientific advancement and the immense accumulation of knowledge, which has made nations prioritize education and teaching in their future plans, especially the diversification of teaching methods in universities to counteract rote learning (Al-Douri, 2009: 9) . Therefore, the issue of academic success skills has become the biggest concern for large segments of society, including educational policymakers. Despite the achievements made by the educational system in the early years of the 20th century, there is still a wide segment that suffers from poor education. For this reason, recent studies have focused on uncovering the reasons behind the low level of achievement and exploring the main determinants of success .

University students face the problem of declining academic achievement, which is a global issue that nearly every society encounters. It is one of the most significant global educational problems that universities suffer from, hindering their performance because the field of study may not align with the students' interests, desires, and ambitions. They find themselves in a field they consider unsuitable for them, as confirmed by the study (Saida, 2013: 113). There are other factors beyond intelligence that lead to poor academic performance, and the solutions lie in using appropriate teaching methods that could contribute to improving achievement levels, such as "realistic thinking." Weakness in any academic subject leads to a decline in the educational process (Al-Khazraji, 2016: 17)

The research problem can be expressed with the following question :

Does the instructor at the Baghdad Technical Medical Institute possess academic success skills and (realistic thinking)? And what is their relationship with students' academic achievement ?

The importance of research

The current era is characterized as the age of science and knowledge, as various sciences and their applications have become necessities of life. Knowledge has increased tremendously in this era, which has come to be known as the age of cognitive advancement. It was natural for us to change our perspective towards teaching, simplifying it, and spreading knowledge so that we can educate generations to be capable of bearing the responsibilities of society (Al-Mousawi, 2015: 15) .

In light of the scientific and technological advancements we are currently experiencing, we observe the need for university students to acquire study skills that enable them to keep up with developments and changes, facilitate their learning process, and allow them to perform their skills with efficiency and proficiency. Additionally, a high level of academic ambition is necessary for students to be able to study and complete academic tasks on time without delay or procrastination. Therefore, time management skills are considered the key to academic success for university students (Hasaballah, 438:2019) .

Success skills are of great importance to students, preparing them well to become educated, creative learners who apply their learning systems in their professional work and academic future. They are capable of development and growth. These skills



have become essential in nurturing students' interests in academic subjects, facing their challenges, and providing an environment characterized by positivity and interaction. They offer a better life and make time management easier. Possessing these skills enables students to better face academic and professional life and to elevate their professional level (Saad Al-Din, 2007: 8) .

Among these skills is the skill of positive communication for students with their peers and faculty members, which is one of the most important skills for academic success due to its potentially positive impact on student success. It plays a crucial role in instilling positive values that can elevate their future professional and academic levels (Al-Khawaldeh, 2007: 73) .

Recent research has also revealed a positive relationship between academic success skills and academic achievement, and that student success depends on questioning, participation, discussion, communication, and attention, which require good and high-level skills (Al-Jayousi, 2014: 26) .

The university stage is an important phase for preparing students to take on responsibilities and make decisions to advance the production process in society (Al-Tikriti, 1990: 115). The researcher believes that students who possess success skills necessarily have a creative style, and the creative style represents one of the main methods that distinguish the behavioral preferences of learners who perform their tasks better than their peers .

And achievement holds great importance in the educational process as it is considered one of the most significant outcomes of education that students strive for, the focal point of the educational process, and one of the fundamental criteria for evaluating educational work in society. It is also the primary criterion for differentiating between students, and through it, educators can understand the extent of changes in learners' behavior, modify educational goals, and set new educational objectives (Al-Raddadi, 2019: 50)

The importance of the research can be summarized as follows :

- Highlighting the skills for academic success for the faculty of the Technical Medical Institute – Baghdad .
- Study the extent to which the research sample possesses realistic thinking .
- Academic achievement, which is considered one of the most important variables in the educational environment, as it serves as the basis for measuring students' progress in education .

- To the best of the researcher's knowledge, there is no previous study that addressed academic success skills and realistic thinking among students of the Technical Medical Institute – Baghdad .

Research Objectives

The current research aims to measure :

- Identifying the skills for academic success among the faculty members of the



Medical Technical Institute – Baghdad .

- Finding the significance of statistical differences in academic success skills among male and female instructors at the Baghdad Technical Medical Institute according to the gender variable (males - females) .
- Identifying realistic thinking among the male and female instructors of the Baghdad Technical Institute .
- Finding the statistical significance of differences in realistic thinking among the instructors of the Baghdad Technical Institute according to the gender variable (males - females) .

• The statistical significance of the correlational relationship between academic success skills and realistic thinking among the instructors of the Baghdad Technical Medical Institute and its relation to the academic achievement of the students

• Research Boundaries

The current research will be defined as follows :

Human Limits - Instructor at the Baghdad Technical Medical Institute for the academic year (2023_2024) .

Spatial boundaries - Baghdad Technical Institute of Medical Technology .

Temporal boundaries – the first semester of the academic year (2023-2024) .

Scientific boundaries_ represented in the scale of academic success skills and realistic thinking.

Defining terms

Academic success skills: Define them (Hassan, Ibrahim, 2020) A set of skills that enable the student to achieve their academic tasks with the aim of reaching success (Abdul Wahid, 352:2020) .

-Operational definition of the researcher :

It is the achievement that a student obtains positively at the individual level through acquiring skills, competencies, academic attainment, and awareness of their learning environment .

Realistic thinking

He introduced her .Jarwan (2002) (one of the types of thinking that deals with tangible things we see, hear, or feel, and revolves only around the tangible, dealing with things in their specific nature as they appear in the field of sensory perception of environmental stimuli) (Al-Qaisi, 2008: 169)

Operational definition: (It is the total score obtained by the respondent through their answers to the scale items) .



Chapter Two Theoretical aspects and previous studies

• The concept of academic success skills :

Success is the preservation of precious moments in life, the attainment of mental health, and the means to achieve goals. Success is also manifested in accomplishments, overcoming challenges, and facing and solving problems. Therefore, many perspectives have emerged in defining success. Some see success as winning and achieving satisfactory and good results for the individual. Additionally, the concept of academic success has seen many terms and studies describing the effective academic success process among university students. Some skills are considered the cornerstone of study, aimed at understanding and comprehending the information presented to students (Tracy, 2002: 7) .

Academic success consists of sub-skills, which are general academic skills, including the effort exerted, the study skills possessed by the student, self-regulation strategies, and intrinsic motivation, as well as satisfaction and challenge related to performance and perceived teacher competence (which refers to the student's perception of the teacher's ability to capture their attention during teaching, evaluation, and judgment of their progress and knowledge development), focus (the ability to pay attention and mental engagement), extrinsic motivation (the encouragement from those around the student to recognize the future importance of their studies), and functional decisiveness with reduced academic anxiety and personal adjustment (Prevatt et al, 2011, 27) .

• The most important skills for academic success

Academic success skills require the adoption of study skills, methods, and techniques, which are evident in students setting their goals, managing their time, and how to utilize all the information presented in the classroom, among other means that help them overcome difficulties and prepare for their success and excellence. These skills are :

• First: Focus skill :

Focus is defined as a system of attention to selected specific matters and ignoring other unrelated matters. It is clear that there are two keys in this definition: choosing only one project among several that attract your attention, and then adhering to a system that makes you focus on this project and completely ignore everything else. It is important to remind you that if you try to think about several things at the same time, this is not considered focus in principle; rather, with this behavior, you scatter your efforts and compromise your achievement (Sam Horn, 2010:20) .

• Secondly: Communication skill :

With the advancement of contemporary human civilization, communication between societies has become the cornerstone of harmony and agreement. Communication is the essence of the process of harmony and interaction among members of society,



resulting in various social influences on an individual's life. Communication processes lead to interest and attraction among the elements of the communication situation, while others result in dissonance among the elements of the communication situation (Amer and Al-Masri, 2013: 94) .

Third: The skill of setting goals and motivation :

The student's ability to set goals, recognizing the importance of these goals, striving and making efforts to achieve them, enhancing themselves, and being satisfied with the progress made in their university studies, and the necessity for university students to possess skills .

This is done in order to enhance the level of motivation among individuals towards various situations that require them to achieve different accomplishments based on clear goals. The direction of human action increases the chances of success by determining the direction and continuity of the action, while recognizing the importance of developing goal-setting skills. Locke and Latham, in their goal-setting theory, emphasize a main idea that setting goals in accordance with certain scientific conditions leads to an increase in achievement levels. Among the most important of these conditions is that the goals should be qualitatively specific and include challenges that stimulate the enthusiasm and motivation of those undertaking the tasks (Shaheen, 2017: 24) .

• Fourth: Time management and organization skill :

Time management is the most important focus for students to accomplish the required tasks and complete them on time through the student's ability to schedule their time to make the most of it in studying their lessons, preparing for each lecture, creating a list of tasks and academic work, and completing them at their scheduled times (Shabib, 2020: 352)..

Fifth: Preparing for exams :

It is the student's ability to prepare for the exam and review their lessons in a timely manner before the exam date, with confidence in their abilities to pass the exams and succeed in them (Shabib, 2020: 352) .

The best general rule for participating in exams is "Be prepared." This means being fully ready to contribute to the type of exam you are preparing for and its scope, and to answer all the questions directed at you, not just part of them. It means mastering the subject matter, not just being familiar with it. It also means that you have organized it well so that you can benefit from it in any required way (Preparation and Training Committee, 2009: 77) .

Third: Realistic thinking

Thinking is considered a natural instinct in humans and indeed appears with biological development. However, thinking is a mental activity that occurs through brain circuits in relation to language, encompassing standards and symbols for the purpose of producing knowledge. It is a mechanism for developing language to adapt to changes in human life. Additionally, thinking is one of the most important characteristics that distinguish humans from other creatures. This behavior results from the complexity of the human brain's structure compared to the simpler structure



of animals, enabling humans to distinguish themselves from animals by their ability to determine the purpose of their behavior (Al-Ayasa, 2011: 92-93) .

An individual with realistic thinking, when assigned a task, tends to rush into execution using the trial-and-error method until they can accomplish it. They do not spend a long time planning how to execute it as an analytical thinker would, nor do they search for the optimal solution method as an idealistic thinker would. If they find themselves at a loss, they start looking for familiar and commonly used methods to accomplish such a task. If they do not find any, they simply turn to an expert to solve their problem (Al-Shuh, 2006: 25) .

• Characteristics of realistic thinking

Realistic thinking has several main characteristics, which are :

It's an experimental work and has a clear vision of the results .

He focuses a lot on facts and results.

Better than those with other methods in situations that require objectivity .

He is attracted to realistic things and tools .

Good at simplifying matters and correcting mistakes .

.It is believed that what is correct is what people agree upon until it becomes a prevailing custom .(Al-Ayasaara, 2011: 98.)



Previous studies

Studies that addressed academic success skills and realistic thinking

Results	Research tools	Research methodology	حجم العينة	Sample size Title of the research, location, and year of its conduct	Researcher's name	ت
The research results showed a statistically significant correlation between professional motivation and academic success skills. 1_ Professional Motivation Scale	Academic Success Skills Scale 1	Descriptive Method	200	Professional Motivation and Its Relationship with Academic Success Skills Among University Students Al-Azhar University, 2020 Abd Al-Wahid, Ibrahim, Sayyid Ahmed	Abd Al-Wahid, Ibrahim, Sayyid Ahmed Hassan, Ahmed Mohammed Shabeeb 2020	1
The research results showed a statistically significant correlation between personal intelligence and realistic thinking	Scale of Personal Intelligence 2- Scale of Realistic	Descriptive Method	400	The Relationship Between Optional Psychological Independence, Personal Intelligence, and Realistic Thinking Among University Students	Al-Mustansiriya 2019, Ali Mohsen Radi Al-Sultani 2019	2

among
university
studentsAl-
Mustansiriya
2019, Ali
Mohsen Radi
Al-Sultani
2019**• Aspects of benefiting from previous studies :**

1. Previous studies have informed the researcher from several aspects, which can be summarized as follows :
2. Defining and having a clear vision of the research problem .
3. Clarifying the importance of research variables .
4. Presentation of the theoretical aspects and literature related to the research variables .Defining the research methodology.
5. Utilizing the literature of previous studies and their results in interpreting the results of her study .
6. Utilizing appropriate statistical methods that align with the research objectives.

Chapter Three**Research methodology and procedures:**

This chapter includes the research methodology and the procedures followed in defining the research population and sample, determining the tools, and the appropriate statistical methods for data processing as follows .

First: Research Methodology

To achieve the objectives of the current research, the researcher adopted the correlational descriptive research method, which focuses on studying the relationships between things. It does not stop at describing phenomena or reality as it is, but rather aims to develop it through the collection of data and information that clearly illustrate the circumstances surrounding the research problem .

(Al-Dhamin, 2007: 135-137)

Since the current research aims to understand the relationship between academic success skills and realistic thinking, the researcher followed the correlational descriptive method, which aims to determine the extent of the relationship between the data and the degree to which the variables are related to each other .

Secondly: Research community

The research community refers to all the elements of the phenomenon under study. It includes several individuals, groups, or social sectors that constitute the research problem, and the researcher seeks to generalize the results of their study to them. (Awda, 2005: 67)

The current research community consists of the faculty members of the Baghdad Medical Technical Institute for the academic year (2023, 2024), totaling (89) faculty



members, including (6) with the title of Professor, (24) with the title of Associate Professor, (22) with the title of Lecturer, and (37) with the title of Assistant Lecturer. Table (3) illustrates this.

Table (3)

The research community is distributed by grade level and gender

Percentage	Female	Male	Number	Academic Title	ت
%6.7	1	5	6	Professor	1
%27	9	15	24	Assistant Professor	2
%24.7	12	10	22	Teacher	3
%41.5	20	17	37	Assistant Teacher	4
%100	42	47	89	Total	

Third: Research sample

The sample is defined as a partial group from the research community and represents its elements in the best possible way, as the results of that sample can be generalized to the entire community and inferences can be made about its characteristics. Therefore, the research sample must retain all the characteristics of the original community to be representative of that community (Abbas, 2007:218) .

Due to the limited research community, the researcher decided to apply the research tools to the entire community to obtain reliable results, especially since he used the comprehensive enumeration method, which works on collecting data about all the elements of the community that the study represents. Thus, the research sample consisted of (89) male and female teachers, as shown in Table (3) .

Fourth: Research tools

The research tool refers to the means by which the necessary information is gathered to answer the research questions or test its hypotheses (Al-Assaf, 2006: 100). In order to achieve the objectives of the current research, it is necessary to have measures that are compatible with the current research. Therefore, the availability of two tools is required: the Academic Success Scale and the Realistic Thinking Scale. The researcher will present a detailed account of the procedures for the research tools as follows :

First: Academic Success Skills Scale :

Since one of the research objectives was to identify the academic success skills among students of the History Department at the College of Basic Education at Diyala University, the researcher had to provide a tool to achieve this goal. After reviewing the relevant literature and previous studies, he found only two studies, namely the study by Shabeeb (2020) and the study by Razzaq (2022). Therefore, the researcher adopted the scale by Dennis, H. Congos (2010), which was adapted by Razzaq



(2022) .

Description of the scale :

The scale prepared by (Dennis H. Congos, 2010) and translated by (Razak, 2022) consists of (32) items that primarily measure (5) skills: focus skill (9 items), communication skill (8 items), goal setting and motivation skill (7 items). Time management and organization skill (4 items), test preparation skill (4 items), and it is a five-point Likert scale with alternatives (always applies, often applies, sometimes applies, rarely applies, never applies). The scale is graded (5, 4, 3, 2, 1) because the items range from the highest to the lowest degree according to the scale's alternatives, all of which are positively oriented. Thus, the highest possible total score is (160) and the lowest possible total score is (32) .

The exploratory sample :

In order to determine the clarity of the instructions for the scale for the respondents and to calculate the time taken to answer the scale items, the scale was applied to a sample consisting of (30) male and female instructors, with (18) male instructors and (12) female instructors from the Baghdad Medical Institute on Wednesday (29/11/2023). They were randomly selected from outside the main research sample according to the time extraction equation. The application results showed that the average time taken to answer the scale was (13) minutes and that the scale instructions were understood and clear. The statistical analysis of the Academic Success Skills Scale items :

The statistical analysis of the scale items is one of the requirements for its preparation to obtain a scale with good psychometric properties for measuring what it was designed for, as logical analysis does not accurately reveal the validity of the scale items because it relies on what appears to the judge. To identify the distinctive items, the scale items were analyzed, and this process is an important step in the Likert method for constructing scales. The purpose of item analysis is to improve the quality of the scale by identifying weak items, rephrasing them, and excluding invalid items (Al-Hassanawi, 2019:140). The researcher relied on the statistical analysis of the researcher (Razak, 2022) because it is a modern scale .

• Honesty :

The test must be characterized by validity, which means that the procedures and methods must be honest and accurate in measuring what is required of them (Al-Adwan & Al-Hawamdeh, 2011: 204) .

Superficial honesty :

With the aim of verifying the apparent validity of the scale, the researcher presented it to a group of specialists in teaching methods, measurement, and evaluation, totaling (22) individuals. (20) forms were retrieved from the distributed forms to the judges and specialists. Their opinions indicated that all the scale items are valid, align with the research objectives, and measure what they were intended to measure, thus achieving an agreement rate of (100%) .



Scale stability

The Cronbach's alpha method for internal consistency :

This is done by calculating the alpha coefficient, which is the internal consistency coefficient of the scale and refers to the internal property of the scale that arises from the statistical relationship between the items (Al-Afoun, 2013: 228) .

To calculate the reliability coefficient in this manner, the researcher applied the scale to a sample of male and female instructors at the Baghdad Technical Institute for Medical Sciences, which consisted of (30) individuals on Sunday, December 3, 2023. The correlation reliability coefficient reached (0.89), which is a very good indicator of the scale's reliability .

The test in its final form :

After extracting the psychometric properties such as validity and reliability through indicators of face validity, construct validity, and reliability calculated using the Cronbach's alpha method, the scale is now ready for application on the research sample. It consists of (32) items followed by five alternatives (always, often, sometimes, rarely, never) and graded (5, 4, 3, 2, 1). The highest score a teacher can achieve is (160) and the lowest score is (32) with a hypothetical mean of (96) .

Secondly: Realistic thinking

Realistic Thinking Scale: The construction of the scale went through the following steps :

The purpose of the scale: To identify the levels of realistic thinking among the sample of researchers, both male and female, at the Baghdad Medical Technical Institute .

Review of sources, literature, and studies related to scale development

Scale Construction: According to the theoretical data collected by the researcher, he began to construct and design the initial version of the realistic thinking scale, which included (28) test items. The items included a set of alternatives (valid, invalid, needs modification, to be presented to specialists). The researcher determined a five-point scale for measuring the items, which is (always, often, sometimes, rarely, never) with a score of (5, 4, 3, 2, 1) .

Validity of the scale :

The researcher employed face validity and presented the scale to a number of experts and specialists in teaching methods and psychology. After obtaining their full approval, the researcher proceeded to complete the research procedures and apply the realistic scale .

The discriminative power of the scale items :

After applying the realistic thinking scale to the exploratory sample, which consisted of 18 teachers within the research community and using the extreme groups method, the researcher reached the discriminatory power of the scale. All the items were distinctive and ranged between the value (2.2895) and the value (5.1965) .

Scale Stability :

Reliability was calculated by applying the Cronbach's alpha equation to the statistical



analytical sample, which consisted of 18 teachers within the community. The researcher reached a ratio of 0.76, indicating the reliability and internal consistency of the realistic thinking scale .

The final version of the realistic thinking scale, after going through the previous steps, becomes ready for application .

Application of the Realistic Thinking Scale:

The researcher applied the Realistic Thinking Scale to the research sample consisting of (89) male and female instructors of Physiology at the Baghdad Technical Medical Institute during the period from (2023/10/18) to (2024/2/15) and obtained the research results that will be presented in the fourth chapter of the current research...

Chapter Four

This chapter includes a presentation of the results reached by the researcher in accordance with the research objectives, as well as an interpretation and discussion of those results in light of the literature and previous studies .

The first objective: To identify the academic success skills of the faculty members at the Baghdad Technical Institute for Medical Sciences .

In pursuit of the research objective, the arithmetic mean of the scores of the research sample, consisting of (89) male and female teachers, was extracted for the Academic Success Skills scale. The research sample questionnaires were corrected, and after using the one-sample t-test, the sample's arithmetic mean was (63.52) with a standard deviation of (4.825). The calculated t-value was (5.9484), which is greater than the tabulated t-value of (1.6641) at (88) degrees of freedom. This indicates that the sample possesses Academic Success Skills, as shown in Table (4).

Table (4)

Statistical Significance at 0.05 Level	T-value		Degrees of Freedom	Standard Deviation	Variance	Mean	Sample Size	Group
	the scheduled	The calculated						
Significant	1.6641	5.9484	88	4.825	18.33	63.52	89	The sample as a whole



This result is attributed to: the research sample possessing academic performance skills, enjoying a forward-looking vision, and presenting innovative ideas to predict the future educational and social reality, as well as a comprehensive vision of the educational system within the university educational environment. This includes identifying the most important relationships and connections between the elements of the educational system to understand the strengths and weaknesses and the mutual influences between those elements, in addition to the tasks assigned to faculty members and the various roles they perform, which include (teaching, scientific research, and community service) .

The second objective :

Finding the significance of statistical differences in academic success skills among the faculty of the Baghdad Technical Institute according to the gender variable (males - females) .

The mean score for males was (39.44) with a standard deviation of (1.825). After using the independent two-sample t-test, the calculated t-value (6.948) was greater than the tabulated t-value (1.6641) at a significance level of (0.05). The mean score for females was (24.525) with a standard deviation of (3.876). After using the one-sample t-test, the calculated t-value (5.56) was greater than the tabulated t-value (1.6641) at a significance level of (0.05) with (87) degrees of freedom, indicating statistically significant differences. This result suggests that the male and female instructors of the institute possess academic success skills, and the proportion of their possession of these skills is similar. Table (5) illustrates this :

(5) Table
The mean and standard deviation of the sample members for the skills scale according to the gender variable.

Statistical Significance at 0.05 Level	T-value		Degrees of Freedom	Standard Deviation	Variance	Mean	Sample Size	Group
	, the scheduled	The calculated						
ذاتي دلالة	1.6641	6.948	78	4.825	14.33	39.44	47	ذكور
		5.56		3.876	11.02	24.525	42	اناث

The table above shows that the research sample possesses academic performance skills in a similar manner, meaning there is no statistically significant difference in favor of either gender. This result is attributed to the fact that all instructors (both male and female) are tasked with performing university service within the educational institution, which includes teaching, scientific research, committees, conferences, and more .

The third objective: Understanding the realistic thinking of the male and female instructors at the Baghdad Technical Institute .



The arithmetic mean of the scores of the research sample, consisting of (89) teachers and educators for the realistic thinking scale, was extracted. The research sample questionnaires were corrected, and after using the t-test for a single sample, the arithmetic mean of the sample was (27.435) degrees with a standard deviation of (7.565). It was shown that the calculated t-value was (9.257), which is greater than the tabulated t-value of (1.6641) at a degree of freedom of (88). Table (6) illustrates this .

Table (6)

Statistical Significance at Level 0.05 The calculated	T-value		Degree of freedom	Variance	Variance	Mean	Standard deviation	Research participants Scale items
	, the scheduled	The calculated						
ذبي دلالة	1.6641	9.257	78	7.565	15.33	27.435	28	89

The researcher found that when comparing the calculated t-value of (9.257) with the tabulated t-value of (1.6641), the calculated value was greater than the tabulated value. This indicates the strength of realistic thinking among the male and female instructors in the research sample .

• The fourth goal

Finding the statistical significance of realistic thinking among the faculty of the Baghdad Technical Institute of Medical Sciences according to the gender variable (males - females) .

The mean score for males was (38.331) with a standard deviation of (6.854). After using the independent two-sample t-test, the calculated t-value (12.218) was greater than the tabulated t-value (1.6641) at a significance level of (0.05). The mean score for females was (26.32) with a standard deviation of (4.890). After using the one-sample t-test, the calculated t-value (4.764) was greater than the tabulated t-value (1.6641) at a significance level of (0.05) with (87) degrees of freedom. Table (7) illustrates this :



Table (7)

The mean and standard deviation of the sample members for the skills scale according to the gender variable.

Statistical Significance at 0.05 Level	T-value		Degrees of Freedom	Standard Deviation	Variance	Mean	Sample Size	Group
	, the scheduled	The calculated						
ذاتي دلالة	1.6641	12.218	78	6.854	15.33	38.331	47	ذكور
		4.764		4.890	10.02	26.32	42	اناث

It is clear from the above table that the calculated t-value for the male sample (professors), which is (12.218), is greater than the calculated t-value for the female sample (female instructors), which is (4.764). This indicates the presence of statistically significant differences in favor of the male sample in the variable of realistic thinking .

• **The fifth goal**

The correlational relationship between academic success skills and realistic thinking among the instructors of the Baghdad Technical Medical Institute and their relationship with students' academic achievement .

The Pearson correlation coefficient was used to identify the relationship between academic performance and realistic thinking among a sample of 89 teachers. The correlation coefficient value was 0.471. After using the t-test for the significance of the correlation coefficient, it was found that the calculated t-value was 7.112, which is greater than the tabulated t-value of 1.97 at a significance level of 0.05. This result indicates a statistically significant positive correlation between the two variables, as shown in Table (8).

Table (8)

It clarifies the relationship between academic performance and realistic thinking.

Statistical Significance at 0.05 Level The calculated	T-value		Correlation Coefficient	Sample Size	Measures
	, the scheduled	The calculated			
دالة	1,97	7.112	0.471	89	Strategic thinking
					Function



This result is attributed to: the existence of a statistically significant positive correlation between realistic thinking and academic performance. This means that as the level of realistic thinking among the faculty members of the Technical Medical Institute increases, their academic performance also improves. This importance reflects and translates into raising the academic achievement level of the students .

Chapter Five Conclusions, recommendations, and suggestions

First: Conclusions :

In light of the current research findings, the researcher reached the following conclusions :

- The faculty members of the Baghdad Technical Institute for Medical Sciences possess the skills for academic success .
- There is a close familiarity with academic success skills among the institute's faculty according to the gender variable .
- Males prefer a realistic thinking style, unlike females .
- The increase in the academic achievement level of the institute's students is due to the positive direct relationship between academic performance and realistic thinking among the instructors, which has positively reflected on raising the academic achievement level of the students .

Secondly: Recommendations :

- Based on the results reached by the researcher in his current study, he recommends the following to Iraqi universities :
- Conducting a study on the research variables with other samples of teachers and educators or at the university and preparatory levels .
- Studying the relationship between academic success skills and (verbal - conceptual) thinking among fourth-year students in the History Department at the College of Basic Education, University of Diyala. Conducting training courses and workshops to develop strategic thinking skills and enhance the academic performance of the faculty members in the History Departments .
- 3The benefit of the strategic thinking and academic performance scales by researchers in the future .

Thirdly: Suggestions :

The researcher suggests, in light of the findings of his current study, conducting similar studies to the current one .

Studying the correlational relationship between strategic thinking and other variables not included in the current study, such as personal intelligence .

Evaluation of the performance of the teaching staff at the Technical Medical Institute



from the students' perspective in light of the academic performance scale .
Conducting a study on realistic thinking among middle school teachers ..

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