

Degree of Ownership Postgraduate Students in the College of Educational Sciences at Mutah University of the Educational Scientific Research Skills

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Abstract

The study aimed to identify the degree of ownership of postgraduate students in the college of the educational sciences at Mutah University of the educational scientific research skills, and their relationship to some demographic variables. Where the study used the descriptive-analytical method. To achieve the objective of the study, a questionnaire consisting of (42) items was developed, divided into eight basic skills, the validity and reliability of which were verified. It was applied to a simple random sample of (145) graduate students in the college of educational sciences at Mutah University in the first semester of the 2020/2021 academic year. The results of the study showed that the degree of postgraduate students' possession of educational scientific research skills at the general level was high. These skills were coming arranged as follows (scientific researcher ethics skill), (scientific material collection skill), (information technology skills), (skill of identifying and characterizing a research problem), (research procedures skills), and (skills for selecting and building a research tool). Where in the penultimate rank came (skills for analyzing and interpreting research results) and finally (statistical data analysis skill). The results also showed that there were no statistically significant differences in the degree of ownership of postgraduate students in the college of the educational sciences at Mutah University of the educational scientific research skills due to the effect of the variables (gender, academic specialization, and degree). In light of the results, the study recommended recommendations, the most important of which are the necessity of providing the study sample members with adequate knowledge and training in the skills in the field of statistical analysis of data because of the degree of their possession of it was medium.

Keywords: Degree of Ownership, Postgraduate Students, Educational Scientific Research Skills.

INTRODUCTION

The twenty-first century is witnessing a tremendous, rapid and continuous development in technology tools and means of communication, and an explosion of knowledge in all areas of daily life. This resulted in a significant increase in the number of scientific research, whether in the field of applied sciences or the field of humanities and

social sciences. Thus, there is competition between countries, universities, scientific research centers and individuals in carrying out various scientific research in order to benefit all humanity.

Attia and Muhammad, (2008) indicated that educational research as one of the branches of scientific research in faculties of education is receiving increasing interest from individuals

and various institutions, because it will contribute to directing, developing and adopting educational policies (Attia & Muhammad, 2008). Also asserts Bayoumi, (2002) that educational research in developed countries represents the driving force behind the educational decision and professional behavior of teachers (Bayoumi, 2002). Thus, its importance appears in the formulation of public policy and defining the features of educational philosophy through the information provided, alternatives and solutions to educational and education problems.

Postgraduate are considered one of the most important experiences for preparing experts and specialists in their various fields of studies. Therefore, their university is hoped that their university letters and theses will contribute to finding solutions to problems of society, innovation and creativity. This requires special preparation by their universities, especially that the majority of those enrolled in graduate studies are characterized by intellectual excellence and a love of knowledge.

When talking about educational scientific research, it is necessary to focus on a specific number of skills in writing educational scientific research, such as identifying the problem of study, collecting scientific material through research and investigation, formulating and testing hypotheses. In addition to determining the appropriate type of research method, building and testing research tools, reading and interpreting the results, and determining appropriate statistical methods.

In view of the importance of educational scientific research at the postgraduate level and the importance of the skills of preparing educational scientific research. Therefore, this study came to investigate the estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University to the degree of their ownership to the skills of educational scientific research in the light of the variables (academic degree, specialization, and gender).

Study problem

The problem of the study stems from the fact that the majority of graduate students at the Faculty of Educational Sciences at Mutah University rarely publish their scientific research in peer-reviewed scientific journals during their studies. Moreover, they only write their letters and theses for the purpose of obtaining an academic degree. On the other hand, some graduate students choose the comprehensive program track as an alternative to the thesis program in order to avoid the trouble of following the steps of educational scientific research during the preparation of university theses. Thus, this is a problem in itself whose main and secondary causes must be identified.

The problem of the study also stems from the decline in the level of classifications of refereed journals in Arab countries, including the classification of journals affiliated with government universities in Jordan. Where we find the vast majority of them do not fall within the Scopus classifications, and this may be the reason for the weak scientific research skills of researchers, including postgraduate students. As a result, this study came to investigate the estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University to the degree that they own educational scientific research skills in the light of the variables of degree, specialization, and gender.

Study objective

A survey of the estimates of postgraduate students in the Faculty of Educational Sciences at the University of Mutah to the degree of they possesses the skills of educational scientific research and its relationship to the variables (gender, degree, and specialization).

Study questions

1. What is the level of estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University of the degree that they possessed the skills of educational scientific research from their point of view?

2. Are there statistically significant differences at the significance level $\alpha \geq 0.05$ in the average estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University to the degree that they possess the skills of educational scientific research due to the variables (gender, degree, and specialization)?

Importance of study

This study is one of the first studies in Jordan within the limits of knowledge of researchers that address the estimates of graduate students at the Faculty of Educational Sciences at Mutah University of the degree to which they possess skills of educational scientific research in the light of the variables of degree, specialization, and gender. Thus, pedagogical studies in this area will thus be provided, which be related to the skills of scientific thinking. Which are an urgent necessity for all individuals to help them solve the problems they face, and enable them to follow scientific and technological developments. Furthermore, the results of this study can help university professors to diagnose strengths and weaknesses in the development of educational scientific research skills for their students. This with the aim of reconsidering their different teaching methods and methods of using quarterly research.

Study limits

- The study was limited to a sample of postgraduate students at the Faculty of Educational Sciences at Mutah University with (Masters and doctorate) students, and they were (145) male and female students. In the first semester of the academic year 2020/2021. The postgraduate students who were selected were from the following majors (general curricula and methods, special education, educational administration, educational psychology, and psychological and educational counseling).
- The study was limited to the eight skills of educational scientific research mentioned in the study tool.

Terminology of study

Procedural definitions

The study uses the following concepts and terms:

- Educational scientific research: An organized intellectual activity carried out by a person called a researcher in order to study a specific problem called (the research problem). It is treated by following an organized scientific method called (the research method) in order to discover new facts or relationships to reach appropriate solutions to solve the problem. Then access to generalizable results and this is called (research results), and the research is on topics related to the field of education only.
- Postgraduate students' estimates: Postgraduate students' ratings of the degree to which they possess the skill on the pentagonal Likert scale, for each paragraph of the study tool that represents the skills of educational scientific research.
- Postgraduate studies: The stage that comes after the completion of the bachelor's stage, in which the student studies for a master's or doctorate.
- Educational research skills: They are a set of competencies or abilities that graduate students at the College of Educational Sciences must possess and that help them take the required steps in educational research in a correct and accurate manner and in the least possible time and effort. As well as which also helps them with the application in preparing scientific theses and theses, which are divided into skills of writing the basics of scientific research, technical skills, and skills of organizing and managing scientific research.

Theoretical framework

Dahlan and Al-Louh, (2013) emphasized that educational research is one of the various fields of scientific research, and from its name, it is clear that it is concerned with educational problems and their appropriate solutions. Where Faculties of education and educational research centers focus on him for his interest in

producing educational knowledge for use in the service of education, whether in the theoretical or practical educational reality (Dahlan & Al-Louh, 2013).

Research skills needed for researchers in the educational field

1. The skill of defining the scientific problem subject: One of the most difficult steps an educational researcher goes through is defining and choosing the problem. In order for the researcher to choose the problem of his research, he must keep in mind three things: the first is a number of considerations that must be taken into account when choosing the problem, second is the conditions and circumstances that the problem comes upon in the research, and third is the procedures that the educational researcher takes in writing this problem. When selecting a research problem, the educational researcher must review previous studies in his field of study. As well as reading most of what was written about his study, helps him in discovering some problems that deserve research and study, on the one hand, makes him start from where the others ended, and then formulate the problem of his research in a sound scientific formulation (Al-Mahdi, 2013).

2. Scientific material collection skill: The process of collecting data and information from different research sources requires a focus from the researcher because it is the basis on which the general structure of research will be based. It's the cornerstone of educational research. Furthermore, it is necessary to differentiate between data and information.

Data: are a set of observations, figures, and opinions related to a particular phenomenon or problem. It is the raw material that the mind uses in thinking and by linking between its parts, comparing or evaluating them.

While information: is ready-made data characterized by clarity, organization, appropriate documentation, and ease of reference directly in libraries and traditional and modern information sources. In short, information is the product of the process of data collection, analysis, and organization. In general, data and information sources can be

divided into written sources and unwritten sources (Al Kasbani, 2012).

Baghdadi, (2016) indicated that written sources represent all publications, plans, drawings, symbols, and personal notes. As for non-written sources, they include verbal and visual information provided by officials. Also material and non-material sources. The material sources are embodied in real materials related to specific research. While non-material sources include audio and visual sources, and information available in the researcher's memory and culture. As well as previous sources, present sources, future sources, official sources and personal sources (Baghdadi, 2016).

3. Baghdadi, (2016) identified that the skill of formulating hypotheses as a step of the research method requires a great deal of logical thinking so that the researcher does not make a mistake trying to explain the educational event or the fact by attributing it to one cause. In addition, the researcher should possess the skill of formulating hypotheses in clear and specific phrases (Baghdadi, 2016). As the hypotheses provide the researcher with the framework according to which the results of the study are formulated so that they are meaningful. The formulation of hypotheses is related to clearly defining the problem and reviewing the literature.

4. Skill identifying appropriate research methodologies: When the word "methodology" appears in the research, it comes to express the philosophy behind educational science, which affects its content and research methods, the unified intellectual framework for the research work carried out by the researcher. In addition to the scientific approach that the researcher uses in addressing his research issues and in interpreting his results (Al-Mahdi, 2013). Furthermore, research methodologies are the study of the organized procedures and steps that the researcher follows in addressing the topics he studies in order to answer the research questions and choose his hypotheses. While the methodology raises its multiple connotations to a higher level, it is concerned with researching what guiding philosophies and governing

frameworks are beyond those research methodologies.

5. Baghdadi, (2016) confirmed that the skill of evaluating, testing and preparing research tools, such as (tests, questionnaires, timetables, and notes), and how to measure these variables, including the pilot testing phase of data collection tools, recording procedures, and techniques (Baghdadi, 2016).

6. The skill of planning for educational research: The educational research plan is an engineering plan based on foundations, principles, and curricula, and is one of the basic requirements for the transition to the information society. The skill of planning is necessary to plan educational research in general and applied research in particular. This is because applied research addresses immediate or future societal needs and seeks to apply existing knowledge to meet them and solve problems in a specific time period (Shehata, 2001).

7. Baghdadi, (2016) identified critical thinking skill: it is a continuous process of careful actual consideration of the validity and conclusions of assumed knowledge and information. It is what research is concerned with basic and which is the systematic and regular investigation and examination, especially investigation and experimentation. Which aims to discover and explain facts and revise accepted theories. Hence, there are basic competencies behind the critical thinking skill, including identifying problems, searching for practical ways to confront these problems, collecting and mobilizing relevant information, identifying unstated assumptions and values, understanding and using accuracy in language, interpreting data, evaluating data, providing evidence and drawing conclusions (Baghdadi, 2016).

8. Mcmillan, (1996) indicated that the skill of interpreting results and writing a research report: The process of interpreting the results and writing the research report is one of the most challenging steps for the researcher, where he calls for scientific creativity and research in the interpretation and analysis of the

information and results under his hands that enable him to add to the knowledge balance in the field of his scientific specialization. Furthermore, the introductory pages of the report include the title page in which the researcher identifies the university in which he is receiving his education, the name of the supervisor, and the requirements for obtaining the degree. Then a page of thanks and appreciation, a list of contents, tables and figures, and the summary shall be general and comprehensive for the research elements (James H. Mcmillan, 1996, 256).

9. Appropriate statistical interpretation: Determining the appropriate statistical methods that the researcher can use in statistical analysis and in analyzing his data is one of the most important stages of educational research. Despite the noticeable increase in the use of statistical methods in the analysis of educational data, many researchers misuse these methods due to the lack of understanding of the statistical analysis methodology they wish to reach. The scarcity of the researcher's use of statistical methods is due to the absence of an accurate scientific model that leads the educational researcher's thinking when planning to use statistical methods in data processing and when implementing such processing procedures (Al-Saeed, 2001).

10. Scientific thinking skill: The scientific method has its objectives that, if employed in the research field, do not go beyond four main objectives are:

- Description: It is intended to clearly define the characteristics of different educational and psychological phenomena. The description is the lowest goal of scientific research, especially if the phenomena or events that are subject to description are not completely new.

- Interpretation: It is an attempt to determine the reasons for the behavior of phenomena and events in a certain way, and accordingly, interpretation requires the works of the mind to a large extent.

- Prediction control: It is the ability to determine the state in which the scientific

method will be, and this determination is not made out of thin air, but usually in light of the generalizations that have been reached.

- Control: In the light of the generalizations that are reached and in light of the predictive ability of the specialized researcher, he can control the circumstances surrounding a particular situation (Diab, 2003).

Previous studies

Dahlan and Al-Louh, (2013) conducted a study aimed at identifying the research skills acquired by graduate students through the graduate program and revealing the extent to which the graduate studies program at the College of Education at the Islamic University contributes to providing students with research skills. In addition to revealing the impact of the variables of gender and specialization on the opinions of graduate students towards the research skills, they acquired for the purposes of educational research. To achieve the objectives of the study, the descriptive-analytical method was used and two questionnaires were built, the first of which consisted of (59) paragraphs distributed on six axes, and the second of (20) paragraphs. It was applied to (64) male and female graduate students in the College of Education at the Islamic University and they were selected by the random stratified method. The results of the study indicated that the research skills acquired for the purposes of educational research among graduate students in the College of Education at the Islamic University were a large degree. The degree to which the postgraduate program contributed to providing students with research skills was a large degree. There are no statistically significant differences in the degree of acquisition of research skills among graduate students in the Faculty of Education at the Islamic University due to the variables of gender and academic specialization (Dahlan & Al-Louh, 2013).

Al-Omrani, (2013) conducted a study aimed at identifying the degree to which graduate students use electronic information sources. The descriptive-analytical method was used to

suit the purpose of the study. A stratified random sample of (121) students was selected from the scientific and humanities faculties in postgraduate studies and a questionnaire consisting of three fields was distributed to them. The first field is the use of postgraduate students for electronic information sources available in the university library, the second area is the postgraduate students' use of electronic information sources available on the Internet, and the third area is the role of electronic information sources in developing the research skills of graduate students. After statistical analysis, calculating frequencies and relative weights, as well as tests and analysis of variance tests, the study reached the following results: The degree of postgraduate students' use of electronic information sources available in the library reached (62.8%) compared to (37.2%) who do not use them. Moreover, it was found that the most important reasons for non-use are the students' resort to searching for electronic information sources via the Internet and the lack of computers in the library. Also, the results showed that the service of searching and downloading electronic information sources available electronically in the library was the most used by students, as the degree of use by graduate students of electronic information sources available online reached (88.4%) compared to (11.6%) who do not use them. The results showed that postgraduate students follow the method of directly accessing the websites they need, and they prefer the freely available online resources, which are in the form of pdf files. On the other hand, the results showed that the role of electronic information sources from the point of view of postgraduate students has emerged significantly in the development of basic skills in choosing a research topic and access to previous studies, especially recent ones, and conceptualization of the research topic. The results also revealed the existence of statistically significant differences in the level of postgraduate students' use of electronic information sources due to the quantity variable in favor of scientific quantities. There are no statistically significant differences in the level of postgraduate students' use of electronic information sources

due to the variable of the educational stage, gender, and age (Al-Amrani, 2013).

Al-Mohsen, (2013) conducted a study aimed at building a tool to measure basic skills in scientific research among students of postgraduate programs at the College of Education at Qassim University. The descriptive-analytical method was used and the study sample consisted of (40) members of the teaching staff at the College of Education at Qassim University, and the study was applied in the academic year 2011/2012. The study tool consisted of (5) main fields and (75) paragraphs. The results of the study concluded that (70) skills were adopted in five main fields: The first field is personal competencies, the second field is defining and describing the research problem, the third field is the theoretical framework and previous studies, the fourth field is research methodology and tools, and the fifth field is analysis and interpretation of the results and writing the recommendations of the study in light of the indications of validity and reliability of the previous. Thus, it can be said that the tool has psychometric properties that make it a valid tool that can be used to measure the basic skills in educational research for students in postgraduate programs in order to arbitrate and evaluate the outputs of graduate students in this field (Al-Mohsen, 2013).

Al-Yassin (2013) conducted a study aimed at identifying the research skills of graduate students in the College of Education at Kuwait University. For the purpose of the study, a questionnaire was built that consisted of (48) paragraphs and was divided into two areas: The required research skills and research difficulties. The validity of the tool was confirmed by presenting it to a group of professors in the College of Education, and the reliability of the tool was confirmed through the use of Cronbach's alpha coefficient, where the overall stability coefficient of the tool was (0.85). The study sample consisted of (68) graduate students. One of the results of the study is that students have needs some research skills in order to be able to conduct research properly. In addition, postgraduate students face some difficulties that hinder the research

process and prevent the achievement of its purpose, it is the preparation of specialized educational researchers, as well as scientifically capable teachers. The study recommended the necessity of providing postgraduate students with the basics and methodology of scientific research and educating postgraduate students about the importance of research in the educational process (Al-Yassin, 2013).

Assaf, (2017) conducted a questionnaire study that assesses secondary school teachers in Gaza governorates for their possession of procedural educational research skills and a proposed vision for their development. The research used the descriptive-analytical method and the study sample consisted of (376) secondary school teachers in Gaza governorates, and the sample type was stratified random. The research tool was also represented in a questionnaire consisting of (3) areas to identify the assessment of secondary school teachers in Gaza governorates for their possession of procedural educational research skills. The results of the research showed that the total degree of estimation of the sample members for their possession of research skills in the specific fields is (58.86%), which is a medium degree. As well as the relative weights of the fields separately, indicating an average level. It was also found that the development of research skills for teachers requires choosing the most appropriate academic study systems in the faculties of education. The results also indicated that educational research in schools requires the availability of sophisticated potential, the demand for these potentials has increased due to the technological boom, the increasing orientation towards future sciences, and the reconsideration of the programs of the faculties of education (Assaf, 2017).

Moulding and Hadley, (2010) conducted a study aimed at finding out the degree of understanding of graduate students in the Master of Education program for educational research. The number of the study sample was (81), including (23) male and (58) female students, and their ages ranged from (21) to (57) years. They enrolled in a master's program in education at Webber State University in the western United States of America, and the

study tool was a questionnaire whose paragraphs focus on the meaning of conducting educational research and included open questions. The results of the study indicated that the study sample had misconceptions about the meaning of educational research and how to apply it in their classrooms. In addition to that, there are no statistically significant associations between age, educational specialization, and time in the program (Moulding & Hadley, 2010).

After reviewing previous Arab and foreign studies, the following observations can be recorded:

1. It is noted that the lack of Arabic studies related to educational scientific research skills needed for graduate students in educational faculties, and this study came as a contribution to educational literature related to educational scientific research skills necessary for graduate students.

2. This study dealt with (8) axes that represent the main skills of educational scientific research and (42) paragraphs representing sub-skills. While other studies were selected, such as the study of Al-Omrani (2013); Dahlan and al-Louh (2013); Elyasin (2013); Enhancer (2013); Moulding (2010) have fewer of educational research skills.

3. Most of the aims of previous studies focused on the role of graduate programs in providing graduate students with scientific research skills, such as the study of Dahlan and Al-Louh. While Al-Omrani study aimed to identify the degree of use by graduate students of electronic information sources and Al-Mohsen's study aimed to build a tool to measure basic skills in scientific research, it was directed to faculty members at the College of Education at Qassim University. While this study aimed to investigate the estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University to the degree that they possess the skills of educational scientific research in the light of the variables of degree, specialization, and gender. Thus, this study has examined another aspect of educational scientific research skills.

Study Methodology and Procedures

This part of the study addresses the methodological procedures for the study, in terms of methodology, statistical methods used to process and analyze data, the identification of the study's community and sample, study tools in terms of how they are built, and procedures for verifying the validity and stability of the study tool, as follows.

Study Methodology

This study used the survey descriptive method as the most appropriate for such studies.

Study Community

The study community consisted of all postgraduate students registered at the College of Educational Sciences at Mutah University for the first semester of the academic year (2020/2021), and their number, according to the official records of the Admission and Registration Unit at Mutah University, was (516) male and female students.

Study sample

The study sample consisted of (145) male and female postgraduate students registered in the Faculty of Educational Sciences at Mutah University for the first semester of the academic year (2020/2021) and selected by a simple random method at a rate of (28.10%) from the study community, Table (1) shows student characteristics according to the variables: gender, degree, and academic specialization.

Table (1): *Distribution of study sample members according to the variables of gender, program, and academic specialization*

Variable	Category	Number	Rate(%)
Gender	Male	66	45.5%
	Female	79	54.5%
	Total	145	100.0%
Degree	Master's	69	47.6%
	PhD	76	52.4%
	Total	145	100.0%

Academic specialization	Curriculum and teaching	50	34.5%
	Educational management	26	17.9%
	Psychology	24	16.6%
	Educational and psychological guidance	45	31.0%
	Total	145	100.0%

Study Tool

In order to achieve the study's objective, which is to learn the estimates of postgraduate students at the Faculty of Educational Sciences at Mutah University to the extent that they possess educational scientific research skills, a tool has been developed for the current study of the questionnaire after reviewing theoretical literature and previous studies related to the subject of the study, and the results of discussions with a number of educational professionals, as well as based on personal experience. The study tool (questionnaire) consisted of the following parts:

The first part: includes the primary qualitative data for the study variables: (gender, degree, and academic specialization).

The second part: consisted of (42) paragraphs, divided into (8) main fields that include scientific research skills.

Validity and stability of the study tool

1. Validity of the study tool

a. Apparent validity:

The validity (content) of the study tool (questionnaire) has been verified in terms of the coverage of fields of educational scientific research skills, the coverage of paragraphs in fields, their belonging to the field under which they fall and the appropriateness of their formulation, through the presentation of the questionnaire to a panel of (10) arbitrators with experience and competence, consisting of (faculty members in the Department of Curricula and Teaching Methods, and the Department of Psychology and Counseling).

The arbitrators' views were positive towards the questionnaire as a whole, with some observations and suggestions on a number of skills (paragraphs). Their observations were taken into account, and the proposed amendments were made, from amending the language wording of some paragraphs, and no skill (paragraph) was deleted, as the final questionnaire formed and consisted of (8) fields and (42) skill.

a. Construction validity (internal consistency)

The validity of internal consistency of the paragraphs (questionnaire) was verified by their application to an exploratory sample of (30) male and female students from the study community, and outside the main study sample.

The (Pearson correlation coefficient) was calculated to measure the relationship between each paragraph and the overall degree of the field to which it belongs, and the correlation coefficients values for the paragraphs with their respective field ranged from (0.415 to 0.684), which are statistically significant at the level (0.01),

The correlation coefficients between each field and the tool's overall degree were also calculated, and the correlation coefficients values for the field with the tool's overall degree were between (0.501 - 0.683) which are statistically significant at the level (0.01), which indicated that the strong internal validity. Accordingly, the application of the questionnaire is, therefore, appropriate for the collection of data from the study sample.

2. Stability of the study tool

The stability of the study tool (questionnaire) was verified by calculating the reliability coefficient of the tool using the Cronbach Alpha coefficient. The stability coefficients for the fields of the study tool, and for the tool as a whole, were shown in Table (2).

Table (2): *The values of the stability coefficients for the study tool fields and for the tool as a whole*

Fields	No. of Paragraph	Cronbach Alpha coefficient
Define and describe the research problem	4	0.78
Research procedures	13	0.86
Scientific material collection (theoretical framework)	4	0.80
Choosing and building a research tool	4	0.76
Analysis and interpretation of research results	3	0.75
Statistical analysis of the data	4	0.81
Information technology skills (IT skills)	5	0.83
Scientific Researcher's Ethics	5	0.84
Tool as a whole	42	0.94

Table (2) shows that the study tool has a high degree of stability, with the study tool's overall stability coefficient by Cronbach alpha coefficient stability was (0.94), while the study tool's fields of stability by Cronbach alpha coefficient ranged from (0.75-0.86), which mean that the study tool has a high degree of stability.

Statistical methods

Method of answer and correction:

The postgraduate student at the College of Educational Sciences at Mutah University will estimate his degree of skill represented by the paragraph following the five-graded (Likert-scale) to answer the paragraphs of the questionnaire (very large degree, large degree, medium degree, low degree, very low degree) and the marks (1,2,3,4,5) are given respectively.

To classify postgraduate students' degrees of skill into high, medium, and low, the average score (1,33) will be adopted where the following values are used to describe the arithmetic averages of the paragraphs:

Table (3): *Classification of the degree to which postgraduate students possess skills*

Level	Classification by test score	Classification by paragraph degree
Low	42- 98	1.00 - 2.33
Medium	98-154	2.34 - 3.67
High	154- 210	3.68 and above

The study processed the data after the collection of questionnaires from the sample of the study by entering the computer and processing using the SPSS 21 statistical program, where the coding of variables, paragraphs, and fields of the study tool was carried out clearly, and to answer questions the following statistical methods were used:

1. Arithmetic averages and standard deviations.
2. Pearson's correlation coefficient.
3. Cronbach's alpha coefficient.
4. Triple multiple variance analysis.

Results and discussion

Results related to the first question: What is the level of estimates of postgraduate students in the Faculty of Educational Sciences at Mutah University to the degree that they possess the skills of educational scientific research from their point of view?

To answer this question, arithmetic means, standard deviations, and the estimated level of study sample members of the study sample of graduate students in the College of Educational Sciences at Mutah University were calculated to the degree of their possession of educational scientific research skills. Table (4) shows the arithmetic means, standard deviations, level, and the ranking of study sample estimates to

the degree of their possession of educational scientific research skills.

Table (4): *Arithmetic means, standard deviations, level, and ranking of study sample estimates of the degree of possession of educational scientific research skills*

No. of field	Fields	Arithmetic mean	Standard deviation	Rank	Level
1	Define and describe the research problem	3.78	0.83	4	High
2	Research procedures	3.77	0.84	5	High
3	Scientific material collection (theoretical framework)	3.95	0.87	2	High
4	Choosing and building a research tool	3.60	0.88	6	High
5	Analysis and interpretation of research results	3.52	0.86	7	High
6	Statistical analysis of the data	2.98	1.01	8	High
7	Information technology skills (IT skills)	3.88	0.91	3	High
8	Scientific Researcher's Ethics	3.96	0.85	1	High
-	Overall level	3.70	0.72	-	High

Table (4) shows that the overall level of the study sample estimates to the degree of their possession of educational scientific research skills is high, with the arithmetic mean of their estimates (3.70) at a standard deviation (0.72).

The results showed that the students' possession of the ethics of the scientific researcher was in the first rank of relative importance with the arithmetic mean of their estimates (3.96) and at a high level, followed in the second rank by the skill of collecting scientific material (theoretical framework and previous studies) in arithmetic mean (3.95) and at a high level, and, third, having IT skills in arithmetic mean (3.88) at a high level. In the fourth rank, they have the skill to define and describe the research problem with an arithmetic mean (3.78) at a high level, while in the fifth rank, they possess

research procedures skills in arithmetic mean (3.77), and at a high level.

In the sixth rank, they possess the skills of selecting and building the research tool in arithmetic mean (3.60) at a medium level, in the seventh rank, they have the skills to analyze and interpret the research results in arithmetic mean (3.52) and at a medium level, and in the eighth and final rank, they possess the skills of statistical analysis of data in arithmetic mean (2.98) at a medium level.

The following is a presentation of the results of the study sample's estimations on the paragraphs of the study tool fields, which were measured depending on the number of paragraphs of the scale, which included (43) paragraphs, as follows:

Table (5): *Arithmetic means, standard deviations, level, and rank of the study sample estimates the degree to which they possess the skills of educational scientific research according to the paragraphs of each field*

No.	Paragraph	Arithmetic mean	Standard deviation	Rank	Level
First field: The skills of defining the research problem					
2	I have the ability to formulate questions that reflect the problem of research	3.82	0.95	1	High
1	I can precisely draft my research title.	3.81	0.99	2	High
4	I have the ability to gradually view the research introduction from the general to the specific to reach the research problem	3.76	1.08	3	High
3	I realize aspects of the research problem	3.73	0.91	4	High
Overall Average		3.78	0.83	-	High
Second field: Research procedures					

10	I can define the procedural terms of the research through its title	3.97	1.09	1	High
9	I can distinguish between independent and dependent research variables	3.97	1.08	2	High
6	I have the ability to describe the components of the study community	3.93	1.05	3	High
8	I can determine the limits and determinants of the research	3.92	1.11	4	High
7	I have the ability to choose the sample research representative of the study community	3.89	1.07	5	High
13	I have the ability to bibliography research content in a way that highlights its chapters, tables, forms, and appendices	3.88	1.10	6	High
4	I can formulate the research objectives clearly.	3.86	0.94	7	High
12	I have the ability to write research appendices	3.80	1.12	8	High
5	I can choose the right research methodology through my research title	3.69	1.15	9	
3	My accurate knowledge of the types of scientific research methods	3.56	1.12	10	Medium
1	I can make the precise scientific formulation of research hypotheses	3.45	0.96	11	Medium
2	I have the ability to choose the most appropriate methods to test the validity of the hypotheses	3.35	1.04	12	Medium
11	I can write the search summary in Arabic and foreign languages clearly	3.23	1.25	13	Medium
Overall Average		3.77	.84		High
Third field: collecting scientific material (theoretical framework)					
4	I can choose previous studies relevant to my research	4.12	0.99	1	High
1	I can distinguish between data and information	3.95	1.04	2	High
2	I have the ability to present the theoretical framework in a structured and integrated scientific way	3.89	0.96	3	High
3	I can distinguish between previous studies and my research site.	3.85	1.06	4	High
Overall average		3.95	0.87		High
Fourth field: Choosing and Building the Research Tool					
1	I have the ability to know the types of scientific research data collection tools	3.87	1.08	1	High
3	I can formulate research tool phrases in a clear way	3.57	1.01	2	Medium
2	I have the ability to build a research tool correctly and accurately according to scientific rules to build scientific research tools	3.47	1.05	3	Medium
4	I have knowledge of the methods of measuring the validity and reliability of the research tool	3.37	1.09	4	Medium
Overall average		3.60	0.88		Medium
Fifth field: Analysis and interpretation of research results					
3	I am able to make research recommendations that are achievable and based on its findings	3.88	0.97	1	High
2	I have the ability to display the research results in an organized and sequential manner according to the search questions	3.47	1.04	2	High
1	I have the ability to discuss the results of the research in a clear and coherent scientific manner based on the results of the research	3.31	1.01	3	Low
Overall average		3.52	0.86		Medium

Sixth field: Statistical analysis of data					
2	I have the ability to enter data into a computer with high skill	3.32	1.26	1	Medium
1	I have sufficient knowledge of descriptive and analytical statistics	2.99	1.19	2	Medium
3	I have the practical ability to use one of the educational statistical analysis programs such as spss and other programs to extract the search results	2.82	1.30	3	Medium
4	I have the ability to select the appropriate statistical processors to analyze the research data	2.81	1.24	4	Medium
Overall average		2.98	1.01		Medium
Seven field: Information Technology Skills					
2	I have the ability to use the internet for the research	4.22	0.96	1	High
1	Possess a high skill in the use of a computer such as printing and technical output for research	3.91	1.21	2	High
5	I have the ability to choose the right information for the search subject	3.90	0.99	3	High
3	I have the ability to use Arab and foreign databases in obtaining references and different sources	3.80	1.10	4	High
4	I can use the latest digital technology methods	3.59	1.22	5	Medium
Overall average		3.88	0.91		High
Eighth field: Scientific researcher's ethics skills					
1	I have the ability to conduct research objectively and impartially	4.05	1.00	1	High
3	I have the skill of documenting sources and references scientifically according to the system of the university	4.02	1.01	2	High
2	Possess the skill of language writing (Grammar, and spelling) in research.	3.95	0.98	3	High
4	I have the ability to use appropriate punctuation	3.91	1.00	4	High
5	I have the skill to know the quotation and citation rules in research	3.85	1.10	5	High
Overall average		3.96	0.85		High

The results shown in Table (5) indicate that the overall level of students' possession of first-field skills (identification and description of research problem) was high, with the arithmetic mean of their estimates (3.78) with a standard deviation (0.83). At the paragraph level, all paragraphs received high estimates and the arithmetic mean of the study sample estimates ranged from (3.73 to 3.82). It is noted that all paragraphs of this field have received high levels and that no paragraph has received medium or low levels. The results show that the standard deviation values of the study sample levels on all paragraphs of the first field (Identification and description of the research problem) ranged from (0.91-to 1.08), indicating the convergence of the study sample's estimates over the paragraphs of this field and they are perceived to be rather homogeneous.

The study sample members' possession of key skills (paragraphs) for the first fields is largely attributable to: Most postgraduate students' jobs and assignments in most courses require them to have all the skills in identifying and characterizing the research problem. These skills recognize the importance of having them because they are the basic skills for later writing their letters and theses. These skills are focused on by teachers at the college during their lectures.

The results are shown in Table (5) show that the overall level of students' possession of the skills of the research procedures was high, with the arithmetic mean of their estimates (3.77) at a standard deviation (0.84). At the paragraph level, nine paragraphs received high estimates and the arithmetic mean of the study sample

estimates ranged from (3.69 to 3.97). The remainder of the paragraphs achieved average estimates and the arithmetic mean of the study sample estimates ranged from (3.23 to 3.56). It is noted that the paragraphs in this area have received high and medium estimates and that no paragraph has achieved low estimates. The results show that the values of standard deviations of the study sample estimates on the paragraphs in the field of students' possession of research procedure skills ranged from (0.94 to 1.25,) indicating the convergence of the study sample's estimates over the paragraphs of this area and they are perceived to be somewhat homogeneous.

The fact that the study sample members possess the majority of the main skills (paragraphs) of the second field is highly attributable to these skills are considered to be one of the most important educational scientific research procedures. They have theoretical and applied knowledge of these skills through a compulsory course in the college (research design).

The practical application of these skills by carrying out home assignments in which they follow the steps of scientific research, and the fact that the majority of the study sample is employed in the educational sector and because of the conditions for promotion and incentives in the Ministry of Education, which require the publication of scientific research, thereby motivating them to enroll in basic skills training courses for scientific research procedures; They also increase their self-knowledge by familiarizing them with scientific research procedures websites through the Internet.

The study sample members' possession of some key skills (paragraphs) for the second field at a medium level is attributable to some members of the sample who may be at the master's program stage who has not only written master's theses and have only been enrolled in the comprehensive examination for graduation and hence their medium applied knowledge of the scientific research procedures but have theoretical knowledge of those skills, the modest knowledge of the sample members of

statistical information and English into translation.

The results in Table (5) indicate that the total level of students' possession of the skills of collecting scientific material (theoretical framework and previous studies) was high, with the arithmetic mean of their estimates (3.95) at a standard deviation (0.87). At the paragraph level, all paragraphs achieved high estimates and arithmetic mean of the study sample estimates (3.85-4.12). Notably, all paragraphs in this field have received high estimates and no paragraph has received medium or low estimates. The results show that the values of standard deviations of the study sample estimates in all paragraphs of the field of students' possession of the skills of collecting scientific material (theoretical framework) ranged from 0.96 to 1.06, indicating that the study sample estimates converge to those of this area and are somewhat homogeneous.

The majority of main skills (paragraphs) of the third field are highly attributable to teaching staff in the College of Educational Sciences are interested in developing these skills among the study sample members through the courses they study, the services offered by Mutah University Library to graduate students by allowing them access to the electronic library at any time and in any place and taking advantage of all the scientific databases shared by Mutah University, which facilitates the study sample individuals to access various scientific research, letters, and theses from various Arab and foreign universities and magazines.

The results shown in Table (5) show that the overall level of students' skills in selecting and building the research tool was medium, with the arithmetic mean of their estimates (3.60) at a standard deviation (0.88). At the paragraph level, one paragraph achieved high estimates and the arithmetic mean of the study sample was (3.87). The rest of the paragraphs achieved average estimates and the arithmetic mean of the study sample estimates ranged from (3.37 to 3.57). It is noted that the paragraphs in this field have received high and medium estimates and that no paragraph has achieved low

estimates. The results show that the standard deviation values of the study sample estimates on the paragraphs of the field of students' selecting and building the research tool ranged from (1.01 to 1.09), indicating that the study sample estimates converged on the paragraphs of the field and were considered somewhat homogeneous.

The fact that the study sample members possess only one main skill (paragraph) from the fourth field at a high level is attributable to: the skill of knowing the types of scientific research data collection tools is basic knowledge in all courses of study, whether in the masters or doctoral programs. The understanding of the study sample members that any educational scientific research basically depends on the identification of the basic study tool through which the research data will be collected, which is the starting point from which the educational scientific researcher starts in his research, as it determines the course and nature of the research later.

The possession of the study sample members of the majority of the main skills (paragraphs) for the fourth field to a medium level is attributable to these skills for selecting and building the research tool need a lot of practical application for the study sample members, because these particular skills need more time and effort from the researcher and knowledge of a structured theory that helps the researcher to apply in practice in educational scientific research.

The results are shown in Table (5) appear that the overall level of students' skills in analyzing and interpreting the results of the research came at a medium level, with the arithmetic mean of their estimates (3.52) at a standard deviation (0.86). At the paragraph level, it achieved two paragraphs with high estimates and the arithmetic mean of the study sample was between (3, 88 and 3, 47). One paragraph achieved low estimates and the arithmetic mean of the study sample estimates was between (3.52).

It is noted that the paragraphs in this field have received high and low estimates and that no paragraph has been achieved on medium

estimates, the results show that the values of standard deviations of the study sample estimate on the paragraphs of the field of students' skills to analyze and interpret the research results ranged from (0.97 to 1.04), indicating that the study sample estimates converged on the paragraphs of the field and were considered somewhat homogeneous.

The fact that the study sample members possess the majority of the main skills (paragraphs) of the fifth field is highly attributable to the skill of presenting the results of the research in a structured manner depends mainly on formulating the study questions correctly, and it is one of the skills that most of the study courses focus on in the College of Educational Sciences. Sample members are aware of the great importance of any scientific and educational research recommendations. and where the importance of scientific and educational research is measured by the recommendations that come out of it, which in turn are the titles of other educational scientific research, and the great and continuous focus of the faculty in the College of Educational Sciences on the importance of postgraduate students reverting to the recommendations of researchers in their scientific research because it reduces much time and effort to students in seeking titles for their scientific research.

The fact that the study sample members possess a majority of the skill (paragraph) of one major fifth field to a low level is because the skill of discussing the research results in a clear and interrelated manner requires the researcher's high access and culture in interpreting the results, and needs the objective researcher to move away from subjectivity in interpretation. And need a lot of thought and reflection on the results, and the practical training of the study sample members within the college courses on this skill.

The results in Table (5) show that the overall level of students' possession of statistical data analysis skills was at a medium level, with the arithmetic mean of their estimates (2.98) at a standard deviation (1.01). At the paragraph level, all paragraphs achieved medium estimates and the arithmetic mean of the study

sample estimates varied (2.81-3.32). It is noted that all paragraphs of this field have received medium estimates and that no paragraph has received high or low estimates. The results showed that the standard deviation values of the sample study estimates on all paragraphs of the field of students' statistical data analysis skills ranged from (1.19 to 1.30), indicating that the sample study estimates converged on the paragraphs of the field and were considered somewhat homogeneous.

The possession of the study sample members of the majority of the main skills (paragraphs) for the sixth field to a moderate degree, is due to the inadequacy of one course taught in the college to enable graduate students to be able to statistically analyze data, the majority of graduate students rely on statistical analysts to analyze their research data in exchange for money to ensure that they obtain a correct statistical analysis. This skill requires high abilities in dealing with special statistical programs that need high skill in its use.

The results in Table (5) show that the overall level of students' acquisition of InformationTechnology (IT) skills was high, with the arithmetic mean of their estimates (3.88) and a standard deviation (0.91). At the subparagraph level, 3 paragraphs were achieved with high estimates. The arithmetic mean of the study sample's estimates ranged from (3.80 to 4.22). One paragraph achieved a medium level of (3.59). It is noted that the paragraphs in this field have received high and medium estimates and that no paragraph has achieved low estimates. The results show that the values of standard deviations of the sample study estimates on the subjects of students' possession of IT skills ranged from (0.96 to 1.22), indicating that the sample study estimates converge over the paragraphs of this field and are somewhat homogeneous.

The acquisition by sample study personnel of the majority of main skills (paragraphs) of field seventh is highly attributable to: the majority of study sample members working in the field of education and therefore the majority of them holding the International Computer Driving Licence (ICDL) for promotions and

allowances. The fact that University Library provided all postgraduate students with free access to Arab and foreign databases through electronic access to the electronic library from anywhere and at any time.

The fact that the study sample members have one main skill (paragraph) in the seventh field is medium is attributable to the inability of the study sample members to keep up with each new digital technique due to the continuous and tremendous development in them, and their coping depends on the research's effort and great desire to keep up with the developments. And because it needs a lot of time and effort to follow up on each new and for the lack of time of the study sample individuals in balancing their job work with their studies.

The results in Table (5) show that the overall level of students' possession of scientific researcher ethics skills was high, with the arithmetic mean (3.96) at a standard deviation (0.85). At the paragraph level, all paragraphs achieved a high level and arithmetic mean of the study sample (3.85-4.05). Notably, all paragraphs in this field have received a high level and no paragraph has received medium or low estimates. The results showed that the standard deviation values of the sample study estimates on all paragraphs of the field of students' possession of scientific researcher ethics skills ranged from (0.98 to 1.10), indicating that the sample study estimates converged on the paragraphs of the field and were considered rather homogeneous.

The fact that the study sample members possess all the main skills (paragraphs) of the eighth field is highly attributable to all educators with a great task and are heirs of the prophets and must have the ethics of the scientific researcher. Because it is one of the basic skills that every scientific researcher must possess, the body of basic skills on which the University focuses significantly and the College of Educational Sciences in particular because it gives a high reputation to the level of graduate students at the university and the quality and authenticity of scientific research at the University.

Results related to the second question: Are there statistically significant differences at the level ($0.05 \geq \alpha$) between the average estimates of postgraduate students in the College of Educational Sciences at Mutah University to the degree that they possess educational scientific research skills due to the variables (gender, academic specialization, and degree)?

To answer this question, triple multiple variance analysis was used, where the

Table (6) *Arithmetic means and standard deviations of the grades of graduate students in the College of Educational Sciences at Mutah University to the degree to which they possess the skills of educational scientific research according to the variables (gender, academic specialization, and degree)*

variable	Category		Field								Total
			First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	
gender	Male	a	3.84	3.76	4.00	3.63	3.89	2.88	3.88	4.08	3.74
		s	66	66	66	66	66	66	66	66	66
		n	0.87	0.89	0.87	0.95	0.98	1.08	0.92	0.82	0.76
	Female	a	3.73	3.71	3.91	3.52	3.65	3.08	3.89	3.85	3.67
		s	79	79	79	79	79	79	79	79	79
		n	0.79	0.79	0.87	0.88	0.84	1.11	0.90	0.87	0.70
academic specialization	Curriculum and teaching	a	3.75	3.76	3.97	3.62	3.92	3.02	3.80	4.01	3.73
		s	50	50	50	50	50	50	50	50	50
		n	0.79	0.70	0.79	0.83	0.78	1.02	0.82	0.73	0.59
	educational management	a	3.84	3.67	3.80	3.49	3.56	3.30	3.96	4.01	3.70
		s	26	26	26	26	26	26	26	26	26
		n	0.92	1.11	1.00	1.05	0.97	1.11	1.11	0.90	0.92
	psychology	a	3.88	3.82	4.11	3.60	3.76	2.99	4.03	3.93	3.77
		s	24	24	24	24	24	24	24	24	24
		n	0.85	0.84	0.94	1.08	1.07	1.26	1.04	1.02	0.84
	Educational and psychological guidance	a	3.74	3.68	3.94	3.55	3.69	2.76	3.86	3.88	3.64
		s	45	45	45	45	45	45	45	45	45
		n	0.83	0.80	0.85	0.84	0.93	1.06	0.80	0.88	0.69
degree	PhD	a	3.80	3.76	3.99	3.62	3.77	2.96	3.88	3.94	3.72
		s	76	76	76	76	76	76	76	76	76
		n	0.80	0.80	0.87	0.90	0.99	1.10	0.88	0.83	0.72
	Master's	a	3.76	3.69	3.91	3.52	3.74	3.01	3.89	3.97	3.69
		s	69	69	69	69	69	69	69	69	69
		n	0.86	0.87	0.87	0.93	0.83	1.10	0.94	0.89	0.74

Table (6) shows that there are apparent differences in the arithmetic means and standard deviations in the estimates of postgraduate students in the Faculty of Educational Sciences at Mutah University to the degree that they possess the skills of educational scientific research according to the variables (gender, academic specialization, and degree). To indicate the significance of statistical differences between the averages, the

arithmetic mean and standard deviations of the estimates of graduate students in the College of Educational Sciences at Mutah University were first calculated to the extent that they possessed the skills of educational scientific research according to the variables (gender, academic qualification, and degree), and Table (6) shows that.

use of three-way multiple variance analysis is shown in Table (7).

Table (7): *Multiple triple variance analysis of the impact of the variables (gender, academic specialization, and degree) on postgraduate students' estimates of the degree to which they possess educational scientific research skills*

Variance source	Dependent variable	Sum of squares	Degrees of freedom	Mean squares	q-value	Statistical significance
Gender Hotelage Value (0.120)	Define and describe the research problem	0.560	1	0.560	0.796	0.374
	Research procedures	0.132	1	0.132	0.186	0.667
	Scientific material collection (theoretical framework)	0.205	1	0.205	0.266	0.607
	Choosing and building a research tool	0.497	1	0.497	0.584	0.446
	Analysis and interpretation of research results	2.168	1	2.168	2.615	0.108
	Statistical analysis of the data	0.689	1	0.689	0.575	0.450
	Information technology skills (IT skills)	0.012	1	0.012	0.014	0.906
	Scientific Researcher's Ethics	2.237	1	2.237	3.051	0.083
	Overall level	0.289	1	0.289	0.534	0.466
Academic specialization Wilkes Lambda Value (0.843)	Define and describe the research problem	0.744	3	0.248	0.352	0.788
	Research procedures	0.531	3	0.177	0.249	0.862
	Scientific material collection (theoretical framework)	1.027	3	0.342	0.444	0.722
	Choosing and building a research tool	0.280	3	0.093	0.110	0.954
	Analysis and interpretation of research results	2.556	3	0.852	1.028	0.382
	Statistical analysis of the data	4.537	3	1.512	1.263	0.290
	Information technology skills (IT skills)	1.035	3	0.345	0.409	0.747
	Scientific Researcher's Ethics	0.886	3	0.295	0.403	0.751
	Overall level	0.483	3	0.161	0.298	0.827
degree Hotelage Value (0.010)	Define and describe the research problem	0.396	1	0.396	0.563	0.454
	Research procedures	0.264	1	0.264	0.371	0.543
	Scientific material collection (theoretical framework)	0.148	1	0.148	0.191	0.662
	Choosing and building a research tool	0.351	1	0.351	0.412	0.522
	Analysis and interpretation of research results	0.008	1	0.008	0.009	0.924
	Statistical analysis of the data	0.393	1	0.393	0.328	0.568
	Information technology skills (IT skills)	0.021	1	0.021	0.025	0.874
	Scientific Researcher's Ethics	0.073	1	0.073	0.099	0.753
	Overall level	0.165	1	0.165	0.305	0.582
Error	Define and describe the research problem	97.829	139	0.704		
	Research procedures	98.912	139	0.712		
	Scientific material collection (theoretical framework)	107.288	139	0.772		
	Choosing and building a	118.277	139	0.851		

	research tool					
	Analysis and interpretation of research results	115.199	139	0.829		
	Statistical analysis of the data	166.417	139	1.197		
	Information technology skills (IT skills)	117.398	139	0.845		
	Scientific Researcher's Ethics	101.879	139	0.733		
	Overall level	75.134	139	0.541		
Total	Define and describe the research problem	2172.063	145			
	Research procedures	2116.509	145			
	Scientific material collection (theoretical framework)	2375.188	145			
	Choosing and building a research tool	1968.063	145			
	Analysis and interpretation of research results	2168.333	145			
	Statistical analysis of the data	1464.063	145			
	Information technology skills (IT skills)	2306.000	145			
	Scientific Researcher's Ethics	2373.680	145			
	Overall level	2063.293	145			
Total Corrected	Define and describe the research problem	99.110	144			
	Research procedures	99.741	144			
	Scientific material collection (theoretical framework)	108.873	144			
	Choosing and building a research tool	119.338	144			
	Analysis and interpretation of research results	119.885	144			
	Statistical analysis of the data	172.528	144			
	Information technology skills (IT skills)	118.454	144			
	Scientific Researcher's Ethics	104.598	144			
	Overall level	75.866	144			

The results in Table (7) indicate that there are no statistically significant differences at the level ($\alpha \leq 0.05$) attributable to the impact of variables (gender, academic specialization, and degree) on postgraduate students' estimates of the Faculty of Educational Sciences at Mutha University to the degree of their possession of educational scientific research skills.

This finding is because most postgraduate students in the Faculty of Educational Sciences at Mutha University receive the same academic knowledge and skills regardless of gender, degree, and academic specialization, and there are no substantial and significant differences in the study and working environments that make them converge in the circumstances affecting them.

The results of the current study are consistent with what was indicated by the results of the study (Al-Yassin, 2013; Assaf, 2017; Al-Omrani, 2013; Moulding, 2010), which showed that the study sample members have medium competence in possessing educational scientific research skills.

The results of the current study differ from the results of the study (Dahlan and Al-Louh, 2013), which showed that the members of the study sample are highly qualified in possessing all research skills, and the difference can be attributed to the different time and place of conducting both studies.

Recommendations:

1. The necessity of providing the study sample members with adequate knowledge and training in the skills of the statistical analysis of data because the degree of their possession of it was medium.
2. Preparing a guide for postgraduate students in the College of Educational Sciences that includes detailed information on the skills of educational scientific research that must be possessed and applied on the ground.
3. A survey of the estimates of postgraduate students from other scientific and humanities faculties at Mutah University to the degree that they possess scientific research skills.
4. The necessity of preparing an integrated theoretical and practical teaching course for educational scientific research skills by the College of Educational Sciences to be taught to postgraduate students.

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