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# **Information Awareness When Applying For Postgraduate Studies At The University Of Baghdad And Its Relation To The Ethics Of Their Scientific Research**

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## **Abstract**

The current research aims to know the information awareness among graduate students at the University of Baghdad and its relationship with the ethics of scientific research have, the researcher adopted a descriptive research methodology to correspond with the problem of research and its goal, has been the number of research tools, which was the first tool measure of information awareness of (24) paragraph distributed number Paragraphs of the scale equally on the six areas, (four paragraphs for each field) and in order, the four-step scale was selected on the basis of the Descartes quartet scale and scores (1,2,3,4) for each positive paragraph and was given a score (4,3,2,1) for paragraphs The negative four paragraphs were represented by the following paragraphs (22,11,10,6). For a second was the measure of ethics of scientific research consists of (30) paragraph three fields (cognitive, skill, sentimental) distributed the number of paragraphs of the scale equally on the three fields, (ten paragraphs for each field), the scale was chosen quadratic scale according to the scale of Descartes and gave four grades for each Paragraph (1,2,3,4) for each positive paragraph was given a score (4,3,2,1) for the negative paragraphs and the five paragraphs were represented by paragraphs (29,22,9,4,2), the research sample consisted of (42) Postgraduate students (11) doctoral students and (31) master students, the results showed that the graduate students have an awareness of information by 64.3%

and more than doctoral students Balu There is no difference between the two phases in the ethics of scientific research.

keywords: Information awareness, Ethics of scientific research

## **Conocimiento De La Información Al Postularse Para Estudios De Posgrado En La Universidad De Bagdad Y Su Relación Con La Ética De Su Investigación Científica.**

### Resumen

La investigación actual tiene como objetivo conocer el conocimiento de la información entre los estudiantes graduados de la Universidad de Bagdad y su relación con la ética de la investigación científica, el investigador adoptó una metodología de investigación descriptiva para corresponder con el problema de la investigación y su objetivo, ha sido el número de herramientas de investigación, que fue la primera medida de conocimiento de la información del número distribuido de (24) párrafos Párrafos de la escala por igual en las seis áreas (cuatro párrafos para cada campo) y, en orden, se seleccionó la escala de cuatro pasos en el base de la escala del cuarteto de Descartes y puntajes (1,2,3,4) para cada párrafo positivo y se le dio un puntaje (4,3,2,1) para los párrafos Los cuatro párrafos negativos fueron representados por los siguientes párrafos (22, 11,10,6). Por un segundo, la medida de la ética de la investigación científica consiste en (30) párrafos de tres campos (cognitivo, habilidad, sentimental) distribuidos por igual en la cantidad de párrafos de la escala en los tres campos (diez párrafos para cada campo), la escala Se eligió la escala cuadrática de acuerdo con la escala de Descartes y se otorgaron cuatro calificaciones para cada párrafo (1,2,3,4) para cada párrafo positivo se le otorgó una puntuación (4,3,2,1) para los párrafos negativos y los cinco los párrafos fueron representados por párrafos (29,22,9,4,2), la muestra de investigación consistió en (42) estudiantes de posgrado (11) estudiantes de doctorado y (31) estudiantes de maestría, los resultados mostraron que los estudiantes de posgrado tienen conocimiento de información en un 64,3% y más que los estudiantes de doctorado Balu No hay diferencia entre las dos fases en la ética de la investigación científica.

palabras clave: Conciencia de la información, Ética de la investigación científica.

Research problem:-

We live today the third industrial revolution of the spread of information after the development of communications technology from the emergence of electronic computers and information processing and Internet networks, and the result of this huge amount of information must observe the ethical rules when searching for information, ethics play a big role in the life of the individual and society The level of societies and the advancement of nations, and in the academic community and the difficulties faced by research, honesty and integrity in the transfer of information when documented and quoted to ensure intellectual property and to be a way of thinking and a way of life, and here The problem of the study can be formulated by asking the following:

The extent to which graduate students at the University of Baghdad have information literacy and its relationship with the ethics of scientific research.

research importance:-

Information is the basic building block of scientific research, which is the way in the establishment of civilizations and the advancement of nations, so must pay attention to the ethics of scientific research as much attention to scientific research to be in line with the values, customs and ethics of society.

Scientific research has been active after the tremendous development of technology in the contemporary world based on scientific and applied research and solving the problems facing humanity. 2008)

And that the relationship between ethics and scientific research is strong and old, but after the acceleration of scientific researches and discoveries and human preoccupation with scientific research and the development of itself without attention to the development of research ethics after the violations defined by the research in the name of science (Jalloul, 153: 2017) to observe the ethical rules when conducting scientific research To reach its maximum benefit under the principles, values and ethical scientific supreme.

Through the results of most of the previous studies that we have been able to see, we find that the study (Bakhoulh, 2017) on the ethics of scientific research, which was applied to university students and graduate students

in Algerian universities, which reached the need to further highlight the ethics of scientific research to increase knowledge of ethics The scientific research when preparing research. As for the study (Hamoud, 2011) on the reality of information awareness in the academic community and the study concluded that there is a need for information and training for the academic community to be educated informatics.

From here it acquires its importance as: -

1. Gives a vision of the ethics of scientific research that should be characterized by the researcher.
2. Provides information about the specifications of the person informed.
3. Building the information awareness scale for graduate students, which is the first locally as far as researchers know.
- 4 - Building a measure of ethics of scientific research, which is the first Arab and local knowledge to the researchers.

research goals:-

The current research aims to verify: -

- 1 - the extent of possession of graduate students at the University of Baghdad for information awareness.
- 2 - The extent of possession of graduate students at the University of Baghdad for the ethics of scientific research.
- 3 - The relationship between informational awareness and ethics of scientific research among graduate students - University of Baghdad

In order to verify the objectives of the research, the following questions were formulated:

1. Do graduate students at the University of Baghdad have an information literacy?
- 2 - What is the prevalence of information literacy among graduate students at the University of Baghdad.
3. Do graduate students at the University of Baghdad have the ethics of scientific research?
- 4 - What is the prevalence of ethics of scientific research among graduate students at the University of Baghdad
- 5- What are the differences of statistical significance at (0.05) level of informational awareness among graduate students at the University of Baghdad according to the stage (Masters and PhD).
- 6- What are the statistical differences at the level of (0.05) for the ethics of scientific research among graduate students at the University of Baghdad according to the stage (Masters and PhD).
- 7 - Is there a correlation between information awareness and ethics of sci-

entific research among graduate students at the University of Baghdad and according to the stage (Masters and PhD)

search limits:-

Spatial limits: - University of Baghdad - College of Education for Pure Sciences / Ibn al-Haytham.

Time limits: - The academic year 2018-2019.

Human Frontiers: - Graduate students (Master and PhD) - Department of Chemistry.

Identification of terms: -

1 - Information Awareness: - A system of capabilities that enable individuals to recognize the time of need for information, and then identified and evaluated for use effectively afterwards (Sullivan, 2002: 7)

Procedural definition: - The amount of information possessed by the individual, and know how to deal with that information, in a timely manner to solve research problems and self-ability to answer the measure of information awareness prepared by researchers.

2 - Ethics of scientific research: - The values that the researcher believes in writing research to reach the results that do not contradict the ethics, principles and culture of the community (the ethical charter of the Faculty of Pharmacy, 4: 2017).

Procedural definition: - The amount of what the researcher possesses the moral and intellectual rules and respect for the thought and effort of other researchers and this can be known by answering the questions of the scale of ethics of scientific research prepared by the researchers.

Theory Background: -

Information literacy: - Information literacy means knowledge and knowledge of the importance of information and how to deal with it in a timely and appropriate manner to solve information problems and meet research requirements with self-capabilities commensurate with the capabilities of the times to reach the stage of information maturity (Faisal and Mohammed, 168: 2008). Knowledge There are stages: -

1- The stage of attempt and error, which is called the stage of subjective experience and sensory knowledge. (Dwedry, 26: 2000)

2 - the use of the expertise of others, such as relying on people with experience and prevailing traditions.

(Attia, 33: 2009)

3 - the stage of dialogue and meditation through dialogue and construction and mental processes.

4 - stage of the development of hypotheses and work experiments and

finally draw conclusions and know the stage of scientific knowledge and scientific scrutiny. (Jalloul, 155: 2017)

Knowledge, including data, information, images, symbols, values, culture, and investment of human competencies to suit the information revolution sweeping the world (Camel and Amin, 6: 2017).

For this it has become necessary to create a generation of information-conscious, which must meet the conditions are: -

1 - Have the ability to receive and analyze information and to address problems in the progress of research. (Farrell, 1992)

2 - have the ability to respond to the stimuli of all the environment and in accordance with social characteristics and knowledge. (Katami and Katami, 2000)

3 - be informed individual has the ability to receive information from the environment, and processing and acquisition and retention. (Rawashdeh et al., 362: 2010)

4 - have the ability to innovate and creativity, which is an alternative to the culture of conservation.

5. Integrates new information with its knowledge inventory.

6. Can organize information for scientific research (Al-Hargan, 36: 2007)

The objectives of information literacy are:

1- Knowledge Objectives: - Knowledge means how to organize information ie adding new information to the stock of previous knowledge owned by the individual and used in a timely manner.

2 - Skilled objectives: - It means the ability to deal with information technology of software and equipment and organization of information and ways to benefit from them and to recognize the need for information and expression.

3 - Emotional objectives: - It means self-confidence that is formed by the individual through the information he possesses and this requires a high level of primary education, which earns the individual knowledge, trends and values.

To provide learning opportunities and activities such as diverse social and cultural experiences, perspectives and opinions to support the concept of intellectual freedom and access to information, are the requirements of genuine citizenship and responsibility in modern civil society. (Ismail, 187: 2002)

2 - Ethics of scientific research: - Scientific research is a means through which the researcher tries to study a phenomenon or a problem and to know the factors that affect their appearance or their access to reach the

results that explain it, or to find a solution or treatment for those forms (Promising Research Center, 3 The purpose of scientific research is to promote society and meet its needs and build a cultural, scientific and civilizational accumulation on a firm basis characterized by the integrity of thought, accuracy, objectivity and clarity through the application of the ethics of scientific research, which is one of the topics of the hour, it requires respect for the rights of others research and their views and dignity. College of Pharmacy, 2017: 4)

The ethics of scientific research: -

1 - scientific humility: - which is one of the most important ethics of scientific research.

2 - Patience: - Is patience in access to knowledge and facts.

3 - objectivity and fairness: - To use the evidence and logical evidence in access to the facts and when discussing previous research discusses literature and scientific method.

4 - Scientific Secretariat: - It means that the views are attributed to their owners. (Bukholah, 55: 2017)

5 - not to exploit the influence in achieving personal benefits: - Any access to opportunities and facilities for the researcher at the expense of another researcher (Promising Research Center, 9: 2016)

6 - Credibility: - It is the results obtained by the researcher honestly, even if they are the opposite of what was expected to get in the research.

7 - Confidentiality of information: - The researcher should retain the identity of the target of the research and not to hint names or reveal their identities from the beginning of the research and even after the end. (Jalloul, 162: 2017)

8 - Bias: This is what happened in the research conducted in the nineteenth century in measuring the human head, which caused the belief that humans are like monkeys and that the owners of small skulls are low-minded thinking (Rziek, 127: 2005)

Consequently, awareness of the ethics of scientific research has become necessary as a result of the acceleration of science and scientific discoveries and the acceleration of scientific research because of its impact on the advancement of nations and advancement.

Through the results of previous studies that we have been able to see and as an example (study Bokhla, 2017) on the ethics of scientific research, which was applied to university students and graduate students in Algerian universities, which reached the need to further highlight the ethics of scientific research to increase knowledge of research ethics Scientific when

preparing research.

The study (Hamoud, 2011) on the reality of information awareness in the academic community and concluded the study to the existence of the need for information and training for the community and academic to be educated informatics.

Research Methodology: - Descriptive research methodology was adopted for its compatibility with the research objective and problem.

Search procedures:

The research community and its sample: - The research community consisted of graduate students at the University of Baghdad - College of Education Pure Sciences / Ibn al-Haytham - Department of Chemistry and the number (42) male and female students, the members of the upper and lower group reached 21 students for each group and 50% for each group He noted (Jabri, 2011) that descriptive studies are taking 20% of the members of a relatively small community (hundreds or less), 15% for a large community (thousands or less), and 5% for a large community (tens of thousands).

search tools :

The current research consisted of two tools, namely, the measure of information awareness and the measure of ethics of scientific research.

1 - Review educational research and access to educational standards of Arab and foreign within the limits of what was available.

2 - Review magazines sober education. As well as educational messages and layoffs that have to do with research variables.

3. Adopting the opinions of experienced specialists in chemistry and methods of teaching science.

4- Taking into account the sample community to which the standards were applied.

The two are:

First: Information Awareness Scale Within the limits of the research methodology, the researcher will rely on the Big6 model in the analysis and description of the information awareness data for students of the Department of Chemistry, Graduate Studies (Master and Ph.D.), one of the most popular models used in the application of information awareness measurement, which focused on students in the graduate years. Big6 into six areas are

1- Determining the tasks and the need for information

2 - Search for information

3. Explore availability sites

4. Use of information

Collect and synthesize information

6. Evaluation of information

The scale consisted of (24) paragraphs divided the number of paragraphs of the scale equally on the six fields, (four paragraphs for each field) and in order, the four-scale scale was selected according to Descartes quartet scale and scores (1,2,3,4) for each positive paragraph was given a score ( 4,3,2,1) For the four negative paragraphs represented by the following paragraphs (22,11,10,6), the scale was applied to a sample of students (42) students, the members of the upper and lower group reached 21 students for each group At 50% per group, the following psychometric properties were confirmed:

Validity of the scale

The veracity of the virtual was verified by presenting it to a group of experts in this field.

Paragraphs correlate with the overall score of the scale

B - linking paragraphs to the field to which they belong

C) Internal link matrix

Paragraphs correlate with the overall score of the scale

The correlation of the paragraph to the total score of the information consciousness scale was calculated using the Pearson equation for a sample of 42 students. The result was that all the paragraphs are any honest function because the calculated value is greater than the tabular value. The tabular value is (0,304) at the level of 0.05 and the degree of freedom is 40 (1)

Table (1)

Relation of paragraphs to the total score

Relation of paragraphs to the total score Table (1)

Paragraph correlation coefficient with the total score	Paragraph number	Paragraph correlation coefficient with the total score	Paragraph number	Paragraph correlation coefficient with the total score	Paragraph number
0,523	17	0,569	9	0,583	1
0,504	18	0,541	10	0,597	2
0,548	19	0,507	11	0,518	3
0,545	20	0,538	12	0,570	4
0,542	21	0,521	13	0,586	5
0,551	22	0,519	14	0,593	6
0,500	23	0,515	15	0,588	7
0,505	24	0,587	16	0,515	8

B- The paragraphs are related to the field to which they belong  
 It was extracted using the Pearson equation, where the scale consisted of six domains for each field.

Table (2)

Paragraphs relate to the domain you belong to

Paragraphs relate to the domain you belong to tabl2:

Parameter correlation coefficients for the total field score	Paragraph numbers	Number of paragraphs	the field	No. of dim
0,606	1	4	Select tasks	1
0,608	2			
0,676	3			
0,678	4			
0,633	5	4	Search for information	2
0,613	6			
0,648	7			
0,645	8			
0,635	9	4	Explore availability sites	3
0,644	10			
0,623	11			
0,604	12			
0,644	13		Use of information	4
0,647	14			
0,611	15			
0,696	16			
0,625	17	4		5
0,658	18			
0,643	19			

0,613	20			
0,642	21		Compilation and installation of information	6
0,610	22			
0,607	23			
0,698	24			

C) Internal link matrix

The table below shows that all the correlations, whether the fields of each other with each other or the correlation of the fields to the total degree of information awareness scale using the Pearson correlation coefficient was a positive function and this indicates the sincerity of construction Table (3)

Table (3)

The Internal Correlation Matrix of the Information Awareness Scale

Tabl3: The Internal Correlation Matrix of the Information Awareness Scale

	Information Awareness	Select tasks	Search for information	Explore the information	Use of information	information collection	Evaluation of information
Information Awareness	1						
Renew tasks	0,797	1					
Search for information	0,720	0,551	1				

Explore the information	0.705	0.662	0.697	1			
Use of information	0.765	0.639	0.622	0.747	1		
information collection	0.711	0.650	0.601	0.719	0.685	1	
Evaluation of information	0.704	0.618	0.507	0.638	0.727	0.660	1

Paragraph recognition: It was confirmed that paragraphs were distinguished using the T-test equation for two independent samples. The result was that all paragraphs are a function of any characteristic because the calculated value is greater than the tabular value.

Stability of the scale: The coefficient of stability of the informational awareness scale was 0.88 using the Fakronbach equation.

Second: the scale of ethics of scientific research

Which consists of 30 paragraphs in three areas (cognitive, skill, emotional) distributed the number of paragraphs of the scale equally on the three areas, (ten paragraphs per field) As will be explained later, the scale of four-gradient was selected according to Descartes quartet scale and grades were given for each paragraph (1, For each positive paragraph, a score of (4,3,2,1) was given to the five negative paragraphs represented by paragraphs (29,22,9,4,2). The scale was applied to a sample of students (42). The students of the upper and lower group reached (21) for each group by 50% and the following psychometric characteristics were confirmed:

The Ethics of Scientific Research

The veracity of the virtual was verified by presenting it to a group of experts in this field.

Paragraphs correlate with the overall score of the scale

B - linking paragraphs to the field to which they belong

C) Internal link matrix

Paragraphs correlate with the overall score of the scale

The correlation of the paragraph with the total score of the ethics of scientific research was calculated using the Pearson equation for a sample of 42 students. The result was that all paragraphs are a valid function because the calculated value is greater than the tabular value. Number (4)

Table (4) the relevance of paragraphs to the overall degree of the scale

Paragraph correlation coefficient with the total score	Paragraph number	Paragraph correlation coefficient with the total score	Paragraph number	Paragraph correlation coefficient with the total score	Paragraph number
0,529	21	0,576	11	0,599	1
0,540	22	0,500	12	0,563	2
0,508	23	0,587	13	0,547	3
0,583	24	0,523	14	0,557	4
0,571	25	0,571	15	0,540	5
0,506	26	0,577	16	0,537	6
0,520	27	0,578	17	0,500	7
0,596	28	0,529	18	0,508	8
0,579	29	0,532	19	0,582	9
0,516	30	0,524	20	0,533	10

B- The paragraphs are related to the field to which they belong

It was extracted using the Pearson equation, where the scientific research ethics scale consisted of three fields for each field of ten paragraphs.

Table (5) Relation of paragraphs to the field to which they belong

Paragraph correlation coefficient with the emotional field	Paragraph number	Paragraph correlation coefficient with the skill domain	Paragraph number	Paragraph correlation coefficient with the cognitive domain	Paragraph number
0,693	21	0,663	11	0,628	1
0,645	22	0,698	12	0,685	2
0,698	23	0,608	13	0,696	3
0,622	24	0,660	14	0,659	4
0,678	25	0,610	15	0,681	5
0,634	26	0,663	16	0,657	6
0,603	27	0,698	17	0,606	7
0,605	28	0,671	18	0,615	8
0,619	29	0,644	19	0,655	9
0,699	30	0,615	20	0,661	10

Matrix of internal correlations

It is clear from the table below that all correlations, whether the fields of each other with each other or the correlation of fields with the total degree of the scale of ethics of scientific research using the Pearson correlation coefficient was a positive function and this indicates the sincerity of the construction Table (6).

Table (6) Matrix of Internal Correlations of the Scientific Research Ethics Scale

Table (6) Matrix of Internal Correlations of the Research Ethics Scale

	Ethics	Gnostic	Skillful	Sentimental
Ethics	1			
Gnostic	0,773	1		
Skillful	0,783	0,732	1	
Sentimental	0,778	0,728	0,474	1

Paragraph recognition: It was confirmed that paragraphs were distinguished using the T-test equation for two independent samples. The result was that all paragraphs are a function of any characteristic because the calculated value is greater than the tabular value.

Stability of the scale: The coefficient of stability of the scale of ethics of scientific research (0.87) using the Fakronbach equation.

Statistical Methods: The researcher used the appropriate statistical methods in the current research, namely:

- T-test for two independent samples
- Pearson correlation coefficient equation
- The Fakronbach equation
- T-test for one sample
- T-test of the correlation coefficients

Showing results

The first question: Do graduate students at the University of Baghdad have information literacy? To answer this question, T-test was used for one sample in order to identify the significance of the differences among chemistry students in information awareness with a hypothetical mean of 60 (the hypothetical mean for each field equals 10).

Table 7

T test for one sample of information awareness

T test for one sample of information awareness table7:

Significance 0.05	* T value		Hypothetical mean	standard deviation	Arithmetic mean	the number	Information Awareness
	Tabular	Calculated					
Function	2,021	4,484	10	2,61551	11,8095	42	Select tasks
Function	2,021	2,856	10	2,80947	11,2381	42	Search for information
isa Function	2,021	1,359	10	3,52039	10,7381	42	Explore the information
Function	2,021	2,829	10	2,99990	11,3095	42	Use of information
Function	2,021	3,520	10	3,28734	11,7857	42	information collection
Function	2,021	2,844	10	2,65878	11,1677	42	Evaluation of information
Function	2,021	3,409	60	15,29858	68,0476	42	For the scale as a whole

\* T-tab value is 2,021 at a level of 0.05 with a degree of freedom 41  
 From the table above shows that the result was a function of all areas of information awareness except the field of information exploration was not a function of any percentage of information literacy in this area medium or acceptable, and can be arranged fields according to the arithmetic averages as follows: -

- I. Define tasks
- II. Compilation and installation of information
- III. Use of Information
- Fourth, the search for information
- V. Evaluation of information
- VI EXPLORE INFORMATION

The second question: What is the prevalence of information literacy among graduate students at the University of Baghdad  
 To answer this question, the hypothetical mean test was adopted for the scale of (60).

Table (8)

Information literacy prevalence

Information literacy prevalence

Prevalence ratio				number	Information Awareness
Not verified		Realized			
%	Repetition	%	Repetition	42	
35.7	15	64, p	27		

The third question: Do graduate students at the University of Baghdad have the ethics of scientific research? To answer this question, the T-test for one sample was used to identify the significance of the differences between chemistry students in the ethics of scientific research on the scale of ethics of scientific research, which consisted of 30 paragraphs with four alternatives with a hypothetical mean of 70 (the mean for each field equals 25) Table (9)

Table (9)

T-test for one sample of ethics of scientific research

T-test for one sample of ethics of scientific research tabl 9:

Significance 0,05	* T value		Hypothetical mean	standard deviation	Arithmetic mean	the number	Research Ethics
		Calculated					
Is a function	Is a function	0,174	25	8,88630	25,2381	42	Cognitive
Is a function	Is a function	1,725	25	10,46606	27,7857	42	Skill
Is a function	Is a function	0,859	25	8,44553	23,8810	42	Emotional
Is a function	Is a function	0,454	75	27,19918	76,9048	42	Scale as a whole

\* T-tabular value is equal to (2,021) at the significance level 0.05 and degree of freedom 41

From the table above shows the result of all areas of ethics of scientific research is not significant and this indicates that the sample have the ethics of scientific research to a medium or acceptable degree, and can be arranged fields according to arithmetic circles as follows: First the skill field, second cognitive field, and third the emotional field.

Fourth question: What is the prevalence of ethics of scientific research among graduate students at the University of Baghdad? To answer this question, the hypothetical mean test of the scale of 75

was adopted.

Table 10

The prevalence of scientific research ethics

The prevalence of scientific research ethics tabl10:

Prevalence ratio				number	Research Ethics
Not verified		Realized			
%	Repetition	%	Repetition	42	
23.8	10	76.2	32		

The fifth question: - What are the differences of statistical significance at the level (0.05) of information literacy among graduate students at the University of Baghdad according to the stage (Masters and PhD)? To answer this question, the T-test was used for two independent samples.

Table (11)

T-test of two independent samples of informational awareness differences (Master and PhD)

Table11: T-test of two independent samples of informational awareness differences (Master and PhD)

Significance 0,05	* T value		standard deviation	Arithmetic mean	the number	Certificate	variable
	Tabular	Calculated					
Function in favor of the PhD	2,021	4,282	5,34960	82,2727	11	PhD	Information
		14,4847	63,0000	31	Masters	Awareness	

\* T tabular value is 0.021 at the level of 0.05 and the degree of freedom 40

Sixth question: What are the significant differences at the level (0.05) of the ethics of scientific research among graduate students at the University of Baghdad according to the stage (Masters and PhD)? To answer this question T test was used for two independent samples and the result is not significant, ie there are no significant differences between the stage of master and doctorate in the ethics of scientific research Table No. (12)

Table (12)

T-test of two independent samples of the differences in the ethics of scientific research (Master and PhD)

Tabl12: T-test of two independent samples of the differences in the ethics of scientific research (Master and PhD)

Significance 0,05	* T value		standard deviation	Arithmetic mean	the number	Certificate	variable
	Tabular	Calculated					
Is a function	2.021	0.954	27,5900	83,6364	11	PhD	Research
			27,1070	74,5161	31	Masters	Ethics

\* T tabular value is 0.021 at the level of 0.05 and the degree of freedom 40

Seventh question: - Is there a correlation between informational awareness and ethics of scientific research among graduate students at the University of Baghdad and according to the stage (Masters and PhD) to answer this question were used statistical means (Pearson correlation coefficient, T-test in terms of correlation coefficients) and the result was a relationship Table (13).

Table (13)

Pearson correlation coefficient and T test for the significance of correlation coefficients for the correlation between informational awareness and the ethics of scientific research

Significance 0,05  Calculated	* T value		The value of the correlation coefficient between informational awareness and ethics of scientific research	number	the sample
	Tabular	Calculated			
Function	2,228	3,839	0,788	11	PhD
Function	2,042	3,824	0,579	31	Masters
Function	2,021	5,754	0,673	42	For the sample as a whole

Discussion of the results: -

The results showed that the graduate students have an average awareness of their knowledge and have the ethics of scientific research. The results showed a significant correlation between the information awareness and the ethics of scientific research.

1 - Continuous reading and use of the Internet when searching for information born to them (graduate students) and awareness of information.

2- The more a person reads, the more information he has, and this has led to the superiority of doctoral students over master's students.

3 - Iraqi society is a society interested in instilling values and principles and governed by customs and traditions.

4 - The ethics of scientific research found the highest percentage of

PhD students because the experience in the numbers of research generates the researcher accuracy in the application of concepts and procedures.

Conclusions: -

1-The results showed that the graduate students have an acceptable or medium awareness of 64.3%.

2 - The results showed the superiority of doctoral students to master students in informational awareness.

3-The results showed that the graduate students have the ethics of scientific research by 76.2%.

4 - There are no significant differences between the masters and doctoral students in the ethics of scientific research.

5 - The areas of ethics of scientific research can be arranged according to the arithmetic circles as follows: First, the skill field, second, the cognitive field, and the third, the emotional field.

6 - The existence of a significant relationship, ie, the existence of a direct relationship between information awareness and ethics of scientific research.

Recommendations and suggestions:

1 - that the ethics of scientific research stems from the advancement of societies and maintain their values and principles.

2. Ethics is important for building societies and is becoming increasingly important in scientific research to ensure human rights and their relevance to the sanctity of life and therefore must be taught as a curriculum for graduate students.

3 - Providing experiences of learning and physical availability of information and the development and support of the skills of technological culture to create people aware of information.

4 - keep pace with the development of technology with attention and focus on continuous reading to create information literacy for graduate students.

5 - Holding seminars and workshops in the academic community to introduce the ethics of scientific research.

As a complement to the research we propose: -

Conduct research that is concerned with the ethics of scientific research and link it with another variable.

Conducting studies in other stages of study or in other departments and disciplines.

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