

# The Level of Digital Fluency Among Al-Aqsa University Teaching Staff Members and Its Relation to Some Other Variables

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**Abstract**— The current study aims to identify the level of digital fluency among Al-Aqsa University teaching staff members, and then to reveal its relation to some other variables. This required the researcher to identify the skills of digital dealing with various technological innovations. To achieve the study objectives, the researcher used the descriptive approach constructing a scale for digital fluency skills. The study was applied on a sample of Al-Aqsa university lecturers and professors; their estimated number was (130) teaching staff members who were purposely selected. After implementing the study, the research reached the following: revealing the teaching staff members' possessions of digital fluency domains which all of them were close to the mean (70%) or slightly over. The relative weights ranged from (65.43%) to (74.81%) for the scale domains and it was (70.32%) for the scales a whole.

**Keywords**— Digital skills, Digital Learning, e-learning.

## INTRODUCTION AND THEORETICAL BACKGROUND TO THE RESEARCH:

Technology plays a growing and accelerating role in our lives, and its use has expanded in all fields, including military, economic and industrial, as has been reflected in education; Where there has been a tremendous development in the use of modern technologies in education as a major component on which to improve learning environments, facilitate learning and improve performance; So a lot of new names came up, including e-learning, smart learning, mobile learning, etc.

In 2015 there were 3 billion Internet users worldwide (Internet World Stats, However, this number is just under half of the world's population, and it shows that developed countries are connected to new technology, with nearly 90% of North Americans using new technology (the Internet World States,2015). The vast amount of information available on the Internet has contributed to the increase in popularity with more than 250 million different websites and 150 million blogs and has also facilitated user interactions, especially with the advent of social networks. In 2010, over 25 billion tweets were sent on Twitter, four billion photos were uploaded on Flickr, and twenty-four hours of YouTube footage were downloaded every minute, and in 2008 the content was created several million times more than the amount of information in every book ever written (Palfrey & Gasser, 2009).

Many studies have found that at least 25% of adolescents use digital devices within five minutes of waking up, while children aged 8-12 use digital devices

four and a half hours after waking up (Ipsos Media CT & Wikia,2013). According to Nokia research, American smartphone users check their phones 150 times per day, every six and a half minutes (Spencer, Ben, 2013).

In less than four decades, ICT has changed the way people communicate and learn, with digital competencies becoming the nerve of the knowledge society, and this is reflected in universities around the world where they have adopted ICT standards; To enhance these competencies irrespective of the teaching method used; The role of the educational system in developing the potential of individuals to communicate, share and use modern digital technologies and to enhance their ability to handle the resources of the digital system.

The smooth and flexible use of digital system resources in educational institutions is called : (E-mail, Google+, and Wikipedia tools) digital fluency, which in the ICT industry is a pressing need; To achieve teaching, research, and social interaction within educational institutions.

Digital fluency represents the skills needed to use digital tools to create, design, and use the information for self-expression, communication, and sharing events (HSi, Pinkard & Woolsey,2005).

From a knowledge-centric approach, digital fluency refers to the capacity to use digital technology skillfully in a variety of ways (Hsi,2007)

Digital fluency refers to the capacity to effectively incorporate modern digital technology into teaching

approaches, such as the creation of teaching materials and content, information transmission and interpretation, and knowledge construction in a variety of educational settings. (Howell, 2012).

Ashford, Robin (2015) that digital fluency is the ability to understand information efficiently and ethically, discover meaning, produce content, gain knowledge, and communicate ideas in a digitally connected world.

Looking at the previous definitions of digital fluency, it is clear that what is useful goes beyond knowledge or

use, to meaningful and orderly application. Educational institutions are required to build the capacity of their students and teachers in all possible technological aspects, which calls for systematic plans to refine and raise their skills. Whereas, the digital fluency of teaching staff would revolutionize the organization of the education process and the very efficient achievement of its goals; As exposure to technology-rich environments may alter their cognitive structure, the Pew Report (2009) Pew indicated that educated future generations of digital citizens will have high abilities in problem-solving and communication using social tools.



**Figure 1:** Spencer, Karen (2015) identified digital fluency as three key elements: digital proficiency, digital literacy, and Social Competence.

#### Elements of digital fluency

Digital Proficiency is defined as the ability to comprehend, select, and use modern technology and its tools, whereas Digital Literacy is defined as the possession of knowledge, skills, and positive trends in digital techniques, and social Competence is defined as the ability to effectively and productively communicate digitally.

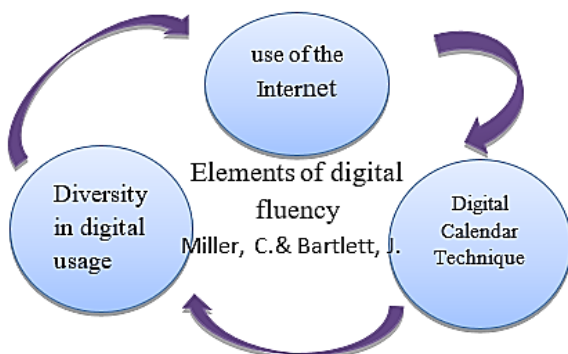
Miller, & Bartlett, (2012) identified three components of digital acumen: good use of the Internet, such as search engines for results, web design and construction, contact identification and counterfeiting, and critical evaluation techniques: the ability of individuals to verify information, search sources, distinguish qualities of information and detect risks from misleading websites. Individuals' capacity to use the Internet in a variety of ways is referred to as diversity.

The essence of digital fluency, according to the researcher, is to make critical thinking one of the fundamental skills in dealing with the digital world, by delving into digital knowledge and how to use it correctly, discovering the strengths and weaknesses of the digital multi-world, and bridging the digital divide in an organized and planned manner.

The recent concept of digital literacy, which refers to the use of new technologies, has emerged as an attempt to bridge the digital divide between societies as a result of technological and digital development, with Jewitt (2006) indicating that the concept of digital literacy has come to be associated with digital visual, emotional, and intellectual literacy, attempts to adapt to the new and continuing demands of the new technologies. In this sense, digital literacy has evolved over the years and has been used to explain various aspects of technological skills, such as the Internet, electronic skills, and computer skills.

Digital fluency has become a strategic goal in education, as those in the cognitive and teaching fields are expected to use ICT products and services extensively. Digital skills encompass not only computer operation and network communications, but also network research, information selection, processing, and applying it from various sources. (Van Dijk, 1999)

Educational institutions need a stable and resilient technological infrastructure, as well as effective use of technology and its tools, and a digital framework that illustrates ICT, to attain digital fluency. (Howell, 2014)



**Figure 2:** Elements of digital fluency

Where the technological architecture requires the presence of multiple digital technologies in the institution through which the learner can easily access various existing technological and digital resources and employ them effectively according to specific criteria to deal with them and direct individuals towards their fruitful use, given that the learning practices at present depend on digital devices that are widely distributed everywhere, and educational institutions tend to deal with digital technologies as a cohesive single bloc that serves and achieves educational goals efficiently.

To do so, educational institutions must have clear standards for incorporating ICT into their curricula and materials, including six frameworks (Technological concepts and processes - research and information on digital fluency - critical thinking and problem-solving skills - Communication and collaboration skills - Digital citizenship skills - and creativity and innovation skills TDSB, 2008).

In its 2011-2013 initiative on digital literacy, the Joint Information Systems Committee, 2011 (JISC) underlined the importance of having the following digital skills:

1. Information and Communication Technology: These are skills that show people's use of information and communication technology.
2. Knowledge of media, information, and data: These are skills that refer to the use of information, media, and various digital data.
3. Digital creativity: It refers to the digital creativity of the individual.
4. Digital communication and sharing: It refers to an individual's ability to communicate and collaborate digitally
5. Digital learning and self-development: It refers to the individual's ability to learn and develop his personality digitally through digital means and tools.
6. Digital Identity and Wellbeing: It refers to an individual's personality and digital identity

Various researchers have conducted studies on digital fluency including the Ouanessa study. B, (2009) Yolanda. G, which sought to learn about digital fluency among faculty members at the University of Maryland and the University of Graduate Studies in the United States of America, and the study showed that faculty members had technological communication and communication skills available to them by the two universities such as E-mail and the use of Microsoft's Word.

The study (Razvan. & oth, 2007) used tests for the development of digital fluency in the student population, and the results present a relationship that shows an improved level of digital fluency in the sample and its ability to use various digital tools.

The study also showed a decline in interest in Web 1.0 and Web 2.0 applications (learning objects - Web questions - electronic concept maps - blogs - wikis - and synchronized chats). Olsen's study (Olsen,2010) proposed an educational model for teachers that could increase the digital abilities of high school students, contributing to their digital abilities and skills. The Costa PB, & others (2010) has shown that nursing students at the University of Sao Paulo have a good level of digital fluency in terms of their knowledge using digital learning environments and communication tools. In the field of digital usage culture, Ohio (Heo,2016) asserts that teachers have used pre-service but limited intelligent learning techniques, which means they have no digital usage culture. Miller's study (Miller, 2009) employs numerous online tools to develop communication, sharing, and technology as the most critical abilities of the twenty-first century.

#### ***Sense of the research issue:***

Through his job as an assistant professor at Al-Aqsa University specialized in educational technology and his strong belief in the need of dealing with technological advances because of its role in telecommunication and communication, and the novelty of the subject of the study through the concept of digital fluency in light of technological development and the extent to which the academic body possesses the skills of digital interaction, whether in educational lectures or calendar methods or in data archiving, preservation, and retrieval, as well as preserving electronic publishing rights, the researcher felt the importance of the study, the researcher recognized the significance of the study, whose findings will provide valuable input to Al Aqsa University's academic review administration.

#### ***The research issue:***

The following was the study's major question: "What is the level of digital fluency among Al-Aqsa University academic faculty members, and how is it related to other variables?"

The following sub-questions emerge from the main question:

1. What is the level of digital fluency among members of the academic staff at Al-Aqsa University?
2. Is there a statistically significant difference in the level of digital fluency among Al-Aqsa University's

3. Does the variable of specialization (applied and natural sciences, human sciences) have a statistically significant impact on the level of digital fluency among members of the academic staff at Al-Aqsa University?

**Study assignments:**

1. The digital energy level of the academic staff at Al-Aqsa University exceeds 80% as an admission level.
2. There are no differences in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $\alpha \leq 0.05$ ) due to the gender variable (males, females).
3. There are no differences in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $\alpha \leq 0.05$ ) to the variable of specialization (Applied and natural sciences, human sciences)

**Study Objectives: The current study aimed to:**

1. Identify the level of digital fluency among members of the academic staff at Al-Aqsa University.
2. Identifying the relevance of gender variations in the level of digital fluency among Al-Aqsa University academic personnel (male-female).
3. Identifying the relevance of disparities in digital fluency levels among Al-Aqsa University academic staff members related to specialized variables (applied and natural sciences, human sciences)

**The importance of the study:**

The importance of the current study is as follows:

1. The results of the current study can be useful in contributing to determining the digital level of employees at Al-Aqsa University and contributing to identifying strengths and addressing weaknesses.
2. The current study includes a list of digital fluency indicators as well as a scale for determining them, which other researchers can use in future research.

**Study terminology:**

Digital fluency is procedurally defined by the researcher as "sufficient digital skills to use various modern technologies for telecommunications, communications, self-expression, knowledge formation, and sharing must be possessed by the faculty of Al-Aqsa University".

**Academic Body:**

The Scholar procedurally defines it as "the academic staff of Al-Aqsa University during the first semester of the year 2017-2018 who hold degrees that qualify them to teach the teaching courses there".

Al-Aqsa University, procedurally defined by the researcher, is "a public university in the Gaza Strip that provides educational services according to specific standards and foundations to develop the capabilities of its students in various fields."

**The limits of the study: The limits of the study were limited to:**

1. The study was carried out during the first semester of the academic year 2017-2018.
2. The study was carried out on a sample of the faculty members working at the Faculty of Education of Al-Aqsa University.
3. Study results were related to the sample nature of the faculty members working at Al-Aqsa University's Faculty of Education.

**METHOD AND PROCEDURES**

The curriculum of study: To achieve the goals of the current study, the researcher used a descriptive approach concerned with describing the phenomenon, collecting, analyzing, and then manipulating data to show the relationship between its dimensions, and its implications.

**Study community:**

The study community consists of 450 members of the academic faculty of the Faculty of Education holding master's and doctorate degrees.

**Study sample:**

The study sample consisted of (147) faculty members from the Faculty of Education at Al-Aqsa University, and they constituted (30%) of the study population.

The study tool: After reviewing educational literature in general, previous studies in particular, and the results of conferences relevant to the subject matter of the study, the researcher designed the study tool to include in its initial form 30 paragraphs distributed over 6 areas, of multiple choice type, which are responded to according to the Pentagon gradium. The scores on this scale are as follows (Very Large (5) - Large (4) - Neutral (3) - Low (2) - Very Low (1)), according to the Likert scale.

**Trustness and consistency of the study tool:**

To calculate the truthness and consistency of the study tool, the researcher applied the resolution to a 30-member survey of the academic staff of Al-Aqsa University.

The questionnaire's validity: Structural validity depicts the relationship between each area of the questionnaire and the total score of the questionnaire items.



**Table 1:** The relationship between the total score of the questionnaire items and each field of the questionnaire

Number	Field	The correlation coefficient
1	ICT competencies	098.0**
2	Digital Identity and well-being	719.0**
3	Digital learning and self-development	359.0**
4	Media, Information and Data Knowledge	169.0**
5	Digital creativity	319.0**
6	Digital communication and sharing	758.0**

The correlation is statistically significant at the significance level (0.01) and the degree of freedom (28)\*\*

From table 1, all resolution fields are directly correlated at 0.01 and show fields to be correlated with the total resolution, which provides assurance to the researcher that subfields are correlated with the total resolution. The investigator thus ascertained that the resolution was characterized by a high degree of constructive veracity.

**Resolution questionnaire:**

Cronbach's alpha coefficient was calculated to measure the stability of each field of the resolution, in addition to calculating the stability of the resolution as a whole.

**Table 2:** The parameters of the questionnaire:

	Field	Number	Stability coefficient
1	ICT competencies	6	649.0
2	Digital Identity and well-being	3	529.0
3	Digital learning and self-development	3	669.0
4	Media, Information and Data Knowledge	5	039.0
5	Digital creativity	4	919.0
6	Digital communication and sharing	3	189.0

The researcher utilized the statistical software (SPSS) to gather and analyze the study's results, and the level of digital fluency of Al Aqsa University faculty members was established by distinguishing between five levels of relative weights, where the sample members agreed to the paragraph:

**Table 3:** Mean Arithmetic and Relative Weight

Level	Too high	High	Average	Low	Too low
Mean arithmetic	4.2- 5	3.4 – less than 4.2	2.6 – less than 3.4	1.8-less than 2.6	
Relative weight	0.84 - 1	0.68- less than 0.84	0.52- less than 0.68	0.36 – less than 0.52	0.01 less than 0.36

**Table 4:** Description of the study sample

Variable	level	Number	Percentage	Total
<b>Gender</b>	Male	106	72.1	147
	Femele	41	27.9	
<b>Years of experience</b>	5.10	28	19.0	147
	10-15	63	42.9	
	15 and more	56	38.1	
<b>College</b>	Literature	32	21.8	147
	Media	8	5.4	
	Teaching	32	21.8	
	Sport	11	7.5	
	Science	35	23.8	
	Others	29	19.7	

**Statistical treatment:**

In analyzing study data, the researcher used arithmetic means and standard deviations, relative weight, Cronbach alpha coefficient, and AMOS factorial analysis test.

**Study results:**

Results of the answer to the first question: Which states: What is the level of digital fluency of the academic staff

at Al Aqsa University? To answer this question, the researcher calculated mean, standard deviations, and relative weights for individual paragraphs, for areas, and the overall questionnaire. The following table shows the results obtained by the researcher:

**Table 5: Arithmetic means, standard deviations, and relative weights of paragraphs and fields of the questionnaire**

Table 3: Arithmetic means, standard deviations, and relative weights of paragraphs and fields of the questionnaire									
NO.	Paragraph	Mean Arithmetic	Standard Deviation	Relative Weight	The Paragraph order by field				Level
1.	Use of ICT-based devices (computers, tablets, digital devices, smartphones, etc)	3.72	0.81	0.74	3				High
2.	Use of different search engines and web browsers	3.78	0.84	0.76	1				High
3.	Use digital capture devices (cameras - audio recorders - video cameras)	3.71	0.79	0.74	4				High
4.	Using Google applications (Gmail - Blogs - Websites - Templates - Photos – SkyDrive)	3.76	0.78	0.75	2				High
5.	Managing a video channel on YouTube (downloading videos - editing videos - deleting videos)	3.46	0.89	0.69	6				High
6.	Making settings for various digital devices (cameras, smartphones, tablets, laptops, desktop computers, etc)	3.54	0.83	0.71	5				High
Field 1: ICT competencies		3.66	0.70	0.73	1				High
7	Personal development, organization and maintenance of its digital identifier using a variety of online platforms and social networks			3.10	0.75	0.62	2	average	
8	Managing health and safety issues, relationships, and work-life balance about technologies and digital societies			3.06	0.82	0.61	3	average	
9	Using digital technologies to achieve well-being and improve it			3.13	0.87	0.63	1	average	
Field TWO: Digital Identity and Well-being				3.10	0.75	0.62	3	average	
10	Identifying personal digital abilities and skills and opportunities for their development "Monitoring my personal needs"			3.01	0.86	0.60	3	average	
11	Learning improvement opportunities using a range of digital tools, learning environments, and media			2.99	0.86	0.60	2	average	
12	Use digital applications to plan, organize, and record learning and its achievements			3.04	0.86	0.61	1	average	
Area III: Digital learning and self-development				3.01	0.79	0.60	6	average	
13	The processes of searching, absorbing, managing, organizing, evaluating, interpreting, and sharing digital information			3.12	0.86	0.62	2	average	
14	Work with others and share data digitally			3.14	0.85	0.63	1	average	
15	Understand and apply legal, ethical, and security requirements while working on digital information			3.03	0.87	0.61	5	average	
16	Access to a wide range of digital media (images, audio, text, video, etc)			3.07	0.89	0.61	3	average	
17	Understanding the legal implications of using media created by others			3.07	0.91	0.61	4	average	
Domain Four: Media, Information and Data Knowledge				3.01	0.76	0.60	5	average	
18	Use technical tools to create different forms of knowledge: audio, images, presentation, etc			3.11	0.80	0.62	1	average	
19	A clear understanding of the design fundamentals of these different forms to draw clear relationships with the audience, and to deal with different applications			3.03	0.82	0.61	2	average	
20	Create new solutions and practices using digital technologies and measure their impact.			2.94	0.84	0.59	3	average	
21	Explore and share new research information using digital tools			2.94	0.92	0.59	4	average	
Domain Five: Digital Creativity				3.09	0.79	0.62	4	average	
22	Communicate with others effectively and appropriately through a range of tools: mail, Twitter, blogs...etc			3.52	0.82	0.70	1	average	

23	Share with others using technologies and digital media and identify opportunities for participatory teamwork	3.45	0.89	0.69	3	average
24	Effective community participation in digital communities and in accordance with ethical standards	3.46	0.85	0.69	2	High
<b>Domain Six: Communication and digital sharing</b>		3.48	0.79	0.70		High
<b>The questionnaire as a whole</b>		3.26	0.67	0.65		average

#### **Results of the answer to the second question: Which states:**

Does the average response of the academic staff at Al-Aqsa University differ from the acceptance level, which is (80%)? To answer this question, the researcher tested the null hypothesis: "The average responses of the academic staff at Al-Aqsa University does not exceed the acceptance level, which is (80%) at the level of significance ( $\alpha \leq 0.05$ ). Zero assumption was tested using a single sample; the following table shows the results obtained by the investigator:

#### **The tabular value of t at a degree of freedom (146) and a significance level (0.05) is equal to (1.976)**

From table 4, it is clear that the calculated value of T is statistically significant at the significance level (0.01).

This means that the average responses of the sample members to the acceptance level (4).

By looking at the arithmetic means the results show that the means for all fields and the measure as a whole are below the acceptance level (4).

We, therefore, accept the zero assumption that "the average responses of members of the academic faculty at Al-Aqsa University shall not exceed the acceptance level (80%)."

This means that members of the academic faculty have not reached their digital fluency level (80%)

**Table 6: A single sample test for differences between the responses mean and the acceptance level (80% = 4)**

Scale	Arithmetic mean	Standard deviation	T value	Level of significance	Statistical significance
ICT competencies	3.66	0.70	5.903	0.001	Evidence found
Digital Identity and well-being	3.10	0.75	14.657	0.001	Evidence found
Digital learning and self-development	3.01	0.79	15.181	0.001	Evidence found
Media, Information and Data Knowledge	3.09	0.79	13.937	0.001	Evidence found
Digital creativity	3.01	0.76	15.804	0.001	Evidence found
Digital communication and sharing	3.48	0.79	7.987	0.001	Evidence found
Overall standard	3.26	0.67	13.523	0.001	Evidence found

#### **Results of the response to question 3**

Which states: Is there a statistically significant difference in the level of digital fluency among members of the academic staff at Al-Aqsa University due to the gender variable (male-female)?

To answer the question, the researcher tested the null hypothesis, which states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $(\alpha \leq 0.05)$ ) due to the gender variable. The researcher used the T-test for two independent samples to test the validity of the statistical hypothesis. Table 5 shows the results of the hypothesis test:

**Table 7: Testing of two independent samples to indicate differences between the mean of the study sample members based on sex variant**

Field	Gender	Number	Arithmetic Average	Standard deviation	Degree of Freedom	Calculated "T"	The value of Sig	Significance
ICT competencies	Male	106	3.73	0.67	145	2.059	0.410	Evidence found
	Female	41	3.47	0.74				

Digital Identity and well-being	Male	106	3.14	0.73	145	1.067	0.288	Evidence found
	Female	41	2.99	0.78				
Digital learning and self-development	Male	106	3.07	0.77	145	1.455	0.148	Evidence found
	Female	41	2.86	0.83				
Media, Information and Data Knowledge	Male	106	3.15	0.77	145	1.671	0.097	Evidence found
	Female	41	2.91	0.84				
Digital creativity	Male	106	3.04	0.75	145	1.014	0.315	Evidence found
	Female	41	2.90	0.80				
Digital communication and sharing	Male	106	3.53	0.81	145	1.360	0.176	Evidence found
	Female	41	3.33	0.75				
The questionnaire as a whole	Male	106	3.32	0.64	145	1.720	0.088	Evidence found

**The tabular value of "T" at the degree of freedom (145) and the level of significance (0.05) equals (1.976)**

It is clear from the previous table that all the calculated "T" values were not statistically significant in the domains of the digital fluency scale and the scale as a whole - except for the domain of IT competencies.

Since the value of (Sig) was greater than (0.05), and therefore we accept the null hypothesis which states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $\alpha \leq$

0.05)) due to the gender variable in all fields; Total degree excluding ICT competencies.

**Results of the answer to question 4**, which states: Is there a statistical difference in digital fluency among members of the academic faculty of Al-Aqsa University due to the variable years of experience? To answer the question, the researcher tested the null hypothesis, which states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $\alpha \leq 0.05$ ) due to the variable years of experience. The researcher used a single-variance analysis test to test the validity of a statistical hypothesis.

**Table 8:** Single-variance analysis test for differences between the mean of the study population, based on a variable of years of experience

Field	Source	Sum of Squares	Degree of Freedom	Average Squares	The value of F	The value of Sig	Level of significance
ICT competencies	Among groups	0.663	2	0.331	0.675	0.511	No Evidence found
	Within groups	70.704	144	0.491			
	Total	71.367	146				
Digital Identity and well-being	Among groups	0.255	2	0.127	0.226	0.798	No Evidence found
	Within groups	81.141	144	0.563			
	Total	81.396	146				
Digital learning and self-development	Among groups	0.421	2	0.210	0.336	0.715	No Evidence found
	Within groups	90.220	144	0.627			
	Total	90.641	146				
Media, Information and Data Knowledge	Among groups	0.565	2	0.283	0.445	0.642	No Evidence found
	Within groups	91.520	144	0.636			
	Total	92.085	146				



Digital creativity	Among groups	0.427	2	0.213	0.363	0.696	No Evidence found
	Within groups	84.632	144	0.588			
	Total	85.059	146				
Digital communication and sharing	Among groups	0.278	2	0.139	0.217	0.805	No Evidence found
	Within groups	91.988	144	0.639			
	Total	92.266	146				
The questionnaire as a whole	Among groups	0.253	2	0.126	0.283	0.754	No Evidence found
	Within groups	64.355	144	0.447			
	Total	64.608	146				

It is clear from the previous table that all the values of “F” change statistically in the areas of the digital fluency scale and the scale as a whole, and therefore we accept the null hypothesis that states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $(\alpha \leq 0.05)$ ) due to the variable years of experience.

**Results of the answer to the fifth question:** which states: Is there a statistically significant difference in the

level of digital fluency among members of the academic staff at Al-Aqsa University due to the college variable? To answer the question, the researcher tested the null hypothesis, which states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $(\alpha \leq 0.05)$ ) due to the college variable. The researcher used a single-variance analysis test to test the validity of a statistical hypothesis. Table 7 shows the results of the hypothesis test:

**Table 9:** Single Variability Analysis Test Indicates the Differences between the Means of Study Sample People Based on the College Variant

Field	Source	Sum of Squares	Degree of Freedom	Average Squares	The value of F	The value of Sig	Level of significance
ICT competencies	Among groups	1.946	5	0.389	0.791	0.558	No Evidence found
	Within groups	69.420	141	0.492			
	Total	71.367	146				
Digital Identity and well-being	Among groups	1.294	5	0.259	0.456	0.809	No Evidence found
	Within groups	80.102	141	0.568			
	Total	81.396	146				
Digital learning and self-development	Among groups	0.757	5	0.151	0.237	0.945	No Evidence found
	Within groups	89.884	141	0.637			
	Total	90.641	146				
Media, Information and Data Knowledge	Among groups	0.291	5	0.058	0.090	0.994	No Evidence found
	Within groups	91.794	141	0.651			
	Total	92.085	146				
Digital creativity	Among groups	1.667	5	0.333	0.564	0.728	No Evidence found
	Within groups	83.392	141	0.591			
	Total	85.059	146				

Digital communication and sharing	Among groups	0.240	5	0.048	0.074	0.996	No Evidence found
	Within groups	92.026	141	0.653			
	Total	92.266	146				
The questionnaire as a whole	Among groups	0.569	5	0.114	0.250	0.939	No Evidence found
	Within groups	64.040	141	0.454			
	Total	64.608	146				

It is clear from the previous table that all the values of “F” change statistically in the areas of the digital fluency scale and the scale as a whole, and therefore we accept the null hypothesis that states: There is no difference in the level of digital fluency among members of the academic staff at Al-Aqsa University at the level of statistical significance ( $(\alpha \leq 0.05)$ ) due to the College Variant.

#### RECOMMENDATIONS: IN LIGHT OF THE RESULTS OF THE STUDY, THE RESEARCHER RECOMMENDS THE FOLLOWING:

- Activating training programs to raise the digital skills of faculty members at Al-Aqsa University.
- Holding educational workshops in the field of digital identity and its meaning, and digital creativity and its meaning to spread the culture of the two concepts among faculty members at Al-Aqsa University.
- Paying more attention to the concept of digital fluency by the administration of Al-Aqsa University, and working on developing a strategy to raise the efficiency of its employees in a technical way.

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