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## The impact of digital learning resources on developing the educational process for faculty members at the PAAET

أثر مصادر التعلم الرقمية في تنمية العملية التعليمية لأعضاء هيئة التدريس بالهيئة العامة للتعليم التطبيقي والتدريب

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Written by:

Nourah F. S. A. Alazemi<sup>12</sup><https://orcid.org/0000-0002-6407-7387>

### Abstract

The study aimed to identify the impact of digital learning resources on the development of the educational process for faculty members at the PAAET, and its role in developing the academic capabilities of faculty members, including the areas of academic advancement and the quality of scientific research in the international publishing observatories, where the study applied the curriculum standards survey descriptive; The questionnaire was applied as a main tool to measure the impact of digital learning resources on the development of the educational process for faculty members through a sample of (78) faculty members from various disciplines. The study concluded that digital learning resources are one of the most important sources for developing the educational process for faculty members. Teaching, whether at the level of scientific research or academic promotion, with its active role in the development of the educational process. The study recommended the need to expand the use of faculty members for digital learning resources, with the need to intensify training courses and workshops in this field, with the need to develop policies and decisions related to their field of work, which In turn, it enhances the development of the educational process.

**Keywords:** Digital learning resources; Digital resources; Educational process; the quality of scientific research; PAAET.

الملخص:

هدفت الدراسة إلى التعرف على تأثير مصادر التعلم الرقمية في تنمية العملية التعليمية لأعضاء هيئة التدريس بالهيئة العامة للتعليم التطبيقي والتدريب، ودوره في تنمية القدرات الأكاديمية لأعضاء هيئة التدريس بما يشمل مجالات الترقى الأكاديمي وجودة البحوث العلمية في مرصد النشر العالمية، حيث طبقت الدراسة معايير المنهج الوصفي المسحي؛ وتم تطبيق الاستبانة كأداة رئيسة لقياس مدى تأثير مصادر التعلم الرقمية في تنمية العملية التعليمية لأعضاء هيئة التدريس من خلال عينة مكونة من (78) عضو هيئة تدريس من مختلف التخصصات، حيث توصلت الدراسة إلى أن مصادر التعلم الرقمية تعد أحد أهم مصادر تنمية العملية التعليمية لأعضاء هيئة التدريس سواء على مستوى البحث العلمي أو الترقية الأكاديمية مع دورها الفاعل في تنمية العملية التعليمية، وأوصت الدراسة بضرورة التوسع في استخدام أعضاء هيئة التدريس لمصادر التعلم الرقمية، مع ضرورة تكثيف الدورات التدريبية وورش العمل في هذا المجال، مع ضرورة وضع السياسات والقرارات المرتبطة بمجال عملهم والتي تعزز دورها من تنمية العملية التعليمية.

الكلمات المفتاحية: مصادر التعلم الرقمية؛ المصادر الرقمية؛ العملية التعليمية؛ جودة البحث العلمي؛ أعضاء هيئة التدريس

### Introduction

Digital learning resources are all sources on which information is recorded digitally, such as books, research, conferences, peer-reviewed and published theses, machine learning systems,

student affairs systems, admissions and registration available through the university on its website, which are accessed and read by computers and networks. Communication, and it

<sup>12</sup> Dr. School Manager, Ministry of Education, State of Kuwait.

can be saved, classified, indexed, and published for various educational and research purposes (Alghamdi & Holland, 2020).

Where the technological development has affected the digital learning resources, after they were confined to books and traditional sources, they have become dependent mainly on computers, educational websites (Barri, 2020), and the various educational systems available from the university, where these resources of all kinds are of great importance to many faculty members and students. To obtain information at the appropriate time for them, as well as providing them with the opportunity to increase their information and knowledge on a specific topic, and these sources seek to achieve unlimited goals (Navarro-Pablo et. al, 2019), most notably preparing a distinguished educational environment that develops the learner's ability to research, and develop their awareness and capabilities.

The nature of information has changed over the past years, as the current era is defined by the digital age. Because of the nature of available information sources, and because of the significant change in the way resources are used to support learning and teaching, as it often uses a wide range of learning systems; For the diverse cognitive processing of beliefs and associated educational targets (Jara et al., 2017).

Faculty members in universities are also the most important resources that they possess, in order to achieve their competitive advantages, and they are the main element in the continuity and survival of any successful organization (Trouche et al., 2020), Therefore, attention came to faculty members for their active role in achieving the performance of universities according to their goals and material resources that they wish to employ to improve their services (Pérez Garcias & Marín, 2016).

This procedure will only be done by creating an encouraging work environment that makes the faculty member feel belonging to the university, and enhances the quality of academic life (Truong et al., 2021), which raises the morale of the university employees and directs their behavior to serve the goals of the university as an integral part of its goals, hence the concept of developing the educational process (Lonzo, 2018), which It emphasizes creating a work environment in which there is support and participation in decision-making processes, problem-solving, and a stimulating academic and career life (Kervin et al., 2019).

Various digital learning resources play an active role in the development of the educational process in universities (Bernacki et al., 2021), as they provide effective factors for increasing scientific capacity, providing information, and its continuity, in line with improving the quality of the educational process's outputs, and the aspired academic advancement of faculty members.

### Objectives of the study

The study sought to identify the role of digital learning resources in the aspects of developing the educational process related to the faculty members of the PAAET, and its role in achieving high rates of job satisfaction, the pursuit of continuous academic advancement, and the high value of the quality of scientific research in various publishing observatories at the global level during the following:

1. The role of digital resources in the process of upgrading the standards of scientific research quality and increasing publishing at the global level.
2. The role and relevance of digital learning resources in the development of the educational process related to faculty members.
3. The role of the PAAET in the procedures for providing distinguished sources of digital learning in order to achieve the ability to develop the educational process.
4. Coming up with specific recommendations that properly contribute to spreading the public culture among faculty members on how to use digital resources to improve the educational process.

### The study importance

The importance of the study is due to the quality of the study presented on the use of digital learning resources in the educational and academic field as one of the most important determinants that push towards the continuous and permanent improvement of the educational process for an important category in universities, so the impact of the study presented has increased, especially in light of the current technological development at the global level, and the constant desire of the faculty in this type of use.

### The study Problem

Based on the foregoing, the problem of the study is due to the fact that it focuses on studying the use of digital learning resources as one of the

objective variables in procedures for increasing the capabilities of the educational process for members of the faculty, as there are actually few studies published in this field at the academic level, whether in Arab or regional universities, with this accuracy. And depth, and similar studies in this specialization are not available at the level of Kuwaiti universities.

### Study questions

The study questions can be reached through the specific answer to the following main question:

- What is the impact of digital learning resources on increasing the educational and academic capabilities of faculty members? Several sub-questions branch out from this main question:
- To what extent do digital learning resources provide an effective and influential role in further improving the educational and academic practical capabilities of faculty members?
- What is the impact of digital learning resources on increasing research capabilities and accredited global publishing?

- What are the elements of excellence and quality required to make the most of digital learning resources in developing the fields of the educational and academic process?
- What is the role of the PAAET in increasing the capabilities of the educational and academic process for faculty members?

### Study Approach

The study used the criteria of the descriptive and survey method. The questionnaire was applied as a main tool.

### The limits of the study

- Temporal limits: The study was applied during the first semester of the academic year 2022/2023.
- Spatial limits: The study was applied to faculty members at PAAET.

### Study community

The study sample consisted of (78) faculty members from all scientific disciplines at PAAET, according to Table No (1).

**Table 1.**  
*Distribution of academic grades for faculty members*

Academic Degree	Prof	Associate Prof.	Assi Prof.	lecturer	Total
Repetition	11	15	43	9	78
Percent	%14	%19.5	%55	%11.5	%100

Source: Author

Table No. (1) Clears the number of study participants and their academic grades; the assistant professor's degree ranked first with 55%, followed by the associate professor's

degree in the second rank with 19.5%, the professor's degree with 14%, and finally the lecturer's degree with 11.5%.

**Table 2.**  
*Scientific majors in the study*

Majors	Humanities majors	Health majors	Scientific majors	Engineering majors	Total
Repetition	33	21	19	4	78
Percent	%42.3	%27.1	%24.4	%5.2	%100

Source: Author

Table No. (2) Shows that the number of study participants belonged to four scientific majors, and that the humanities majors ranked first with a percentage of 42.3%, while health majors ranked second with a percentage of 27.1%, and in the third rank the scientific majors came with a percentage of 24.4%, and finally majors engineering ranked fourth with 5.2%.

### Literature review

Cohen et al., Study (2022), the current study sought to identify many of the actual experiences of students in how to deal with multiple digital technologies during academic study, and to realize their vision about the benefits of technology. By applying latent factor analysis

consisting of 16 variables to students' perceptions of the benefit of digital resources, the study found that there were statistically significant differences between the use of technology and its actual usefulness among students, as they confirmed the dominance of formal digital resources such as: learning management systems, and digital library resources. available on the Internet, and the use of informal digital resources, including academic research services; related videos and audios on content-sharing sites such as YouTube and Wikipedia; And communicate with other students through social networks.

Sharp & Hamil study (2018), The study sought to provide a lot of literature as one of the main evidences on the importance of digital resources that enhance student learning performance in the mathematics major, and its impact on discovering the effect of digital resources that are adaptable to web processes, Think through Math©, as well as on the performance of the student sector through assessments Mathematics course, where the study was keen to apply the quantitative study method by conducting several analyzes that included multiple regression among a wide sample of students amounting to 723 students from a school district in northern Texas, where the results of that study showed that there are high levels of use with Think Through Math © Think Through Math© reports, through analysis and multiple data collection, standardized math assessment procedures for all elementary, middle and high school levels.

Urhiewhu & Emojorho study (2015), this study sought to apply the standards of digital resources among undergraduate students at the postgraduate level at Delta University and Edo in Nigeria. Likewise, there is a clear neglect by the university administration of the role of the Federal University Library associated with petroleum resources, which does not include digital sources of information at all, with many databases not available on the Internet; with an insufficient number of computers available to access digital information resources.

Pena Correa study (2018), The study aimed to analyze many types of databases, such as: the knowledge base and information management systems available in Arab academic institutions, where information technology represents a major investment in organizational and academic work, as the study focused entirely on the capabilities of information management systems to acquire knowledge, store it securely and retrieve it. And it's continuous maintenance, and the integration of various digital resources, e-learning systems,

and knowledge-based management technology leads to an improvement in the performance of academic satisfaction for faculty members. The primary variables that allowed predicting intention and use were baseline (38.3%), learning rewards (34.9%), ease of use (28.2%), and resource characteristics (25.9%).

## **The study theoretical framework**

### **Educational process**

The educational process is an organized and coordinated set of all activities and procedures that seek to meet the educational and academic needs that guarantee the conditions and objectives set by the field of higher education (Inefuku & Franz, 2015), the educational and academic process is based on a wide range of basic principles. Among them: the standards of democracy, science, and humanity (Niqresh, 2019), which aim to provide students with many educational and academic skills that make their personality more balanced, and fully contribute to providing future job opportunities (Warwick, 2008).

### **Digital learning resources**

They are those sources that rely entirely on computer applications and the Internet for a comprehensive set of services that contribute to facilitating access to educational material, exchanging discussion and dialogue, and assisting students in obtaining educational material digitally from various local and international agencies. It is also known as information that is stored and stored (Fatima et al., 2017), Access to it through a computer, and this information can include the forms of text files, a computer program, or a page available on the World Wide Web. It could be defined procedurally as those sources that provide educational resources in their various forms electronically (Makharova, 2021).

### **The importance of digital learning resources**

The use of digital learning resources can be used to overcome all the problems faced by faculty members through processing information, the process and procedures for organizing, storing, retrieving, publishing and making it available to other beneficiaries (Koehn & Hawamdeh, 2010), and other needs, as digital learning resources lead to obtaining information in an easy and fast way (Warwick, 2008), and there are many among the reasons and factors calling for the introduction and use of digital learning resources, the most

important of which is the increase in the capacity of the volume of intellectual production, and the distribution of information in different information container (Fernández-Pampillón, 2017).

Thus, the importance of digital learning resources can be summarized in the following points:

- It provides the student with the opportunity for self-learning according to his personal potential and tendencies.
- Reducing the costs of electronic publishing of digital resources.
- It allows learning methods according to the individual differences of students.
- Allows speed and extreme accuracy in accessing information by students and researchers.
- Allows the student to provide information anywhere.
- Ease of updating and modifying digital information.
- Provides full opportunity for use by a wide number of users.
- Achieving the ability to overcome the difficulty of running out of hard copies and the difficulty of distributing traditional sources.

#### **Types of digital learning resources**

- Basic digital learning resources: They are digital resources available on the Internet and can only be accessed through this use, as they are available on the digital network and have no origin in traditional reality, such as: info graphic design sites, as well as resources for providing educational lessons, and resources for modifying and media creation.
- Converted digital learning resources: They are non-digital resources in the first place, but digital copies of them have been prepared, meaning that they have been actually converted from their actual paper content to digital content such as: e-books and training courses websites.
- Digital learning resources, which are through texts, images, sounds, videos, diagrams, and mind maps.

#### **Open learning resources**

All of them are used as a similar value to describe learning, teaching and research resources of various digital types that are included with the

public domain or issued according to open publishing licenses, which is the format that can be used or modified continuously, or redistributed by users free of charge (Marín et al., 2020), free and without restrictions, as these resources are Open educational forms of teaching, learning, and the ability to research through a variety of media, whether digital or non-digital, which are in the public domain or released under an open regulated license that allows others to freely use, apply, adapt, and redistribute them without any or no restrictions (Matusiak, 2010), Open license within the framework of intellectual property rights based on the associated international agreements, which respect the copyrights of these sources.

#### **Preliminary study procedures**

The researcher took several of the following actions: (Ricardo-Barreto et al., 2020).

- Working on defining the theoretical framework for this study through the processes of reviewing previous studies and previous educational research related to the same specialization.
- Create a specific questionnaire to measure the extent of measuring the impact of digital learning resources on developing and increasing the educational process for faculty members (Üstünlüoğlu & Dahlgren, 2021).
- The questionnaire was presented in its initial form to many specialized arbitrators.
- The questionnaire was prepared and created in its final form that can be distributed, by preparing a set of successive suggestions and amendments submitted by specialized arbitrators. Distribution of the questionnaire electronically to faculty members.
- Carrying out statistical analysis and processing of the data provided, reaching many study results and their interpretation, and presenting related recommendations and proposals.

#### **Methodology**

The following procedures were prepared for the study:

First: The researcher initially prepared a list of criteria that include the role of digital learning resources in developing and increasing the educational process for faculty members, in which she relied sufficiently on a variety of coherent studies that are fully related to the field

of study, and accordingly the following actions were taken: (Pinkas & Lin, 2010)

A list of basic criteria has been prepared in its initial form: A specific and preliminary list has been prepared for a number of criteria aimed at measuring the role of digital learning resources in developing and increasing the educational process for faculty members.

- Ensuring the veracity of the arbitrators: the researcher was keen to request arbitration and check the criteria by a number (5) of specialists in the library and information field, and all the required amendments were made from them based on their suggestions and observations.
- Preparing the list of standards in its final form: The list of standards in its full form consisted of (3) main and specific standards, and (16) sub-paragraphs of the standards.

Second: Preparing the main study tool: The researcher was keen to prepare the main study tool (the questionnaire) according to the following stages:

- The main objective of the questionnaire: The objective of this questionnaire was to realize the impact of the standards of digital learning resources on the development and increase of the educational process for faculty members.
- Reaching the veracity of the questionnaire: Where the validity of the questionnaire means: the suitability and suitability of the questionnaire phrases in their apparent form for the research purpose of the study for which they were developed, and through the preliminary examination of the contents of

the questionnaire phrases, and the following has been taken into account:

- Clarity of the objectives and determinants of the questionnaire.
- The validity of the basic criteria and phrases that the questionnaire aims to measure.
- Availability of the questionnaire in electronic form, speed in distribution and application, correct access to responses, and interpretation of those results.

To ensure the validity of the questionnaire; A set of procedures were applied, including: (the validity of the arbitrators, the validity of internal consistency), according to the following procedures:

- Achieving the veracity of the arbitrators: the questionnaire was presented to a number (5) specialists in library and information science; In order to ensure the validity of the questionnaire, the specialists have indicated several necessary amendments. Especially with regard to the distribution of the questionnaire with its division into 3 main axes, and many sub-criteria associated with it, and the Cooper equation was applied in order to calculate the degree of agreement between the group of arbitrators, and the actual and real agreement percentage for the questionnaire reached (94.00%), which is A very high percentage, which indicates the validity and strength of the resolution.
- The validity of the internal consistency of the questionnaire: The internal consistency coefficient of the questionnaire was verified by the researcher by applying the questionnaire to the study sample, through Table No. (4):

**Table 4.**  
*Correlation coefficients for the resolution criteria*

Phrase	The relation of the phrase to the degree of the axis	Phrase	The relation of the phrase to the degree of the axis
1	**0.781	9	**0.744
2	**0.766	10	**0.779
3	**0.762	11	**0.737
4	**0.754	12	**0.741
5	**0.723	13	**0.789
6	**0.787	14	**0.691
7	**0.759	15	**0.744
8	**0.696	16	**0.779

(\*\*) Function at (0.01) level

Source: Author

It is clear from the previous table no. (4) That the group of correlation coefficients between the

questionnaires and the total score for each domain separately ranged between (0.691) and

(0.789), and all of them achieved a statistically significant degree at the level of (0.01).

Accordingly, it turns out that the correlation coefficients between all the questionnaire phrases and the total degree associated with them are considered a function at the level (0.01); Which is statistically significant on the existence of the extent of interdependence and coherence of the resolution criteria; This confirms that the questionnaire has a strong internal consistency.

- Calculation of the degree of stability of the questionnaire: where the measurement of stability is one of the important conditions that express the complete accuracy in measuring the study criteria, as the

researcher was keen to calculate the degree of stability of the questionnaire through the application of the midterm segmentation procedures, through which the degrees of the sample of (78) members were distributed Teaching staff, where the grades were partially divided according to odd and even criteria, and this was done by extracting a correlated group of simple correlation coefficients (Pearson coefficient) between each of the two halves scores in this questionnaire, and then work was done to correct them by applying the equation (Spearman-Brown), and finally the Guttman equation was used to calculate the degree of stability of the resolution: as shown in Table No. (5):

**Table 5.**

*The values of the stability coefficient for the study questionnaire using the split-half method*

Guttman coefficient	Stability coefficient (Spearman-Brown)	Pearson stability	Stability coefficient
0.871	0.834	0.768	Questionnaire phrases

Source: Author

The values in Table No. (4) indicate that the questionnaire of the impact of the role of digital learning resources on the development of the educational process for faculty members at PAAET has a high degree of stability, and this means that the values in this questionnaire are very appropriate and reliable, and are indicative

of The validity of the questionnaire and its applicability to actual application.

#### **Analyzing the results of the applied study**

The role of digital resources in improving the quality of scientific research and publishing.

**Table 6.**

*The role of digital resources in improving the quality of scientific research*

Phrase	Yes	Some how	No	Average	Description
The impact of digital learning resources on the development of the educational process	44	29	5	2.93	High
Using digital learning resources in performing scientific and academic tasks	37	32	9	2.75	High
Digital learning resources meet scientific, teaching, research and knowledge needs	41	30	7	2.77	High
Using digital learning resources to improve reference citations	32	29	17	2.85	High
The use of digital learning resources in ease of research and objective coverage	29	26	13	2.81	High

Source: Author

The responses of the study sample of faculty members indicate that there is a positive increase in the role of digital resources in improving the quality of scientific research and publishing. There is a significant increase in the impact of learning resources on the development of the

educational process, by 93.6%. Digital learning in the performance of scientific and academic tasks has achieved a fairly high score of approximately 88.5%, while the total responses towards digital learning resources meeting scientific, teaching, research and knowledge

needs have achieved a rise of 91%, while the attitudes of faculty members towards The use of digital learning resources to improve reference citations reached an average score of 78.2%, and the responses of the study sample towards the use of digital learning resources in ease of research

and objective coverage reached an average score of 70.5%.

The role of digital learning resources in developing the educational process.

**Table 7.**  
*The role of digital learning resources in developing the educational process*

Phrase	Yes	Some how	No	Average	Description
The contribution of digital learning resources to the development of the educational process	26	36	16	2.93	High
Using digital learning resources in performing scientific and academic tasks	30	39	9	2.75	High
Digital learning resources meet scientific, teaching, research and knowledge needs	29	41	8	2.77	High
Using digital learning resources to improve reference citations	27	37	14	2.85	High
The use of digital learning resources in ease of research and objective coverage	31	42	5	2.81	High
Digital resources raise the efficiency of scientific research and global publishing.	27	38	13	2.91	High

Source: Author

The responses of the study sample about the role of digital learning resources in the development of the educational process indicate that they achieved a fairly high degree, as the contribution of digital learning resources in the development of the educational process reached 79.5%, while the use of digital learning resources in the performance of scientific and academic tasks reached a moderate degree of 88.5%, and the responses of faculty members reached a fairly high degree of meeting digital learning resources for scientific, teaching, research and knowledge needs, amounting to 89.7%, and faculty members answered about the use of digital learning resources in improving reference citations to a

fairly high degree By 82%, while the responses of the study sample on the use of digital learning resources in the ease of research and objective coverage achieved a high score of 93.6%, and the responses of the study sample on raising the efficiency of scientific research and global publishing to a fairly high degree. At a rate of 83.3%, and with regard to the impact of digital resources on academic promotion, a fairly high score of 85.9%.

The role of the PAAET in providing digital learning resources to achieve the development of the educational process.

**Table 8.**  
*The role of the PAAET in providing digital learning resources to achieve the development of the educational process*

Phrase	Yes	Some how	No	Average	Description
Contribute and improve the quality of digital learning resources	39	26	13	2.93	High
Contribute to increasing the academic achievement of faculty members	35	31	12	2.75	High
Involving undergraduate and postgraduate students in the educational process	37	35	6	2.77	High
Achieving academic satisfaction for the faculty members of the Authority	32	40	6	2.85	High

Source: Author

The responses of the study sample about contributing to and improving the quality of digital learning resources indicate achieving a fairly high score of 83.3%, while contributing to increasing the academic achievement of faculty members achieved a fairly high score of 84.6%, and it also achieved the involvement of undergraduate and graduate students. The highest level in the educational process achieved a high score of 92.3%, and the academic satisfaction of the faculty members achieved a fairly high score of 92.3%.

### Recommendations

- The need to hold specialized workshops and organize training courses on a regular and regular basis on the use of digital learning resource applications in developing and increasing the educational process for faculty members.
- The need to consolidate the skills of faculty members towards the use of digital resources in order to transfer knowledge and develop academic life at the university.
- Work on developing future plans to develop and increase the capacity of digital learning resources to increase the educational and academic process for faculty members through many subscriptions, full cooperation, and local and international exchange of knowledge aimed at increasing the many available digital resources.
- Fully motivate faculty members to be creative and innovative; With regard to the field of digital learning resources in order to develop and increase the educational and academic process for faculty members.
- Continue to conduct more studies and in-depth research related to the impact of digital learning resources on the development of the educational and academic process for faculty members.

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