ASJP Algerian Scientific Journal Platform

Afak For Sciences Journal
Issn: 2507-7228 – Eissn: 2602-5345
https://www.asjp.cerist.dz/en/PresentationRevue/351



Volume: 10/ N°: 04(2025), P 274-289

The Digital Empowerment of University teachers

A Field Study at Larbi Tébessi University - Tébessa

Meklati Fatma Zohra*
Larbi Tébessi University - Tébessa, (Algeria)
Maklati.fatma@univ-tebessa.dz

Mecheri Radia
Larbi Tébessi University - Tébessa, (Algeria)
Mecheri.radia@yahoo.com

Abstract

This study aims to explore the role of digital empowerment of university teachers through a field study conducted at Larbi Tébessi University – Tébessa. The research focused on the teachers' adaptation requirements to digital technological transformation and their roles amid these digital changes. To achieve the study's objectives, a questionnaire was employed, comprising two main axes that reflected the study's sub-questions. It was administered to a sample of 80 university teachers from various faculties and disciplines. The findings revealed that university teachers face several obstacles, including material constraints such as fragile infrastructure and the unavailability of suitable digital media; human factors such as the lack of technical expertise among both teachers and students; and technical issues such as frequent internet outages and insufficient protection against recurring cyber attacks. The study also found that participation in digital training programs, whether institutionally offered or self-initiated, contributes significantly to the digital empowerment of university teachers. This empowerment, in turn, supports the effectiveness of the teaching process and the graduation of competent cohorts capable of meeting the challenges of national development across various fields. The quality of digitalization is one of the key areas targeted in the national strategy for quality in higher education.

Article info

Received May 27;2025
Accepted June 24:2025

Keyword:
- ✓ Empowerment.
- ✓ Digitalization.
- ✓ University Teacher.
- ✓ Digital Empowerment

* Corresponding author

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

1. *Introduction*

The world is currently undergoing a new phase of rapid technological transformation, often referred to as the era of the information explosion. This transformation has impacted all levels of human activity, starting from the family unit to all subsystems of society, with the educational system, at all its levels, being at the forefront. The use of information technology and the various benefits offered by this digital shift, such as enhanced quality, speed, and data digitization, has become an urgent necessity imposed across all sectors of the educational system, particularly in higher education. This is due to its connection with the intellectual elite of society, namely, university teachers and students.

Through digital technological tools and platforms such as Zoom, Skype, Moodle, and others, university teachers are now able to deliver instruction in new and dynamic ways. The implementation of these technologies and platforms, which have fostered a digital environment, necessitates active engagement in tasks and activities that require skills in the use of information and communication technologies. This is essential for fulfilling the multifaceted role of the university teacher, who represents the most vital link in the triad of functions: teaching, scientific research, and community service.

As a key driver of the university's progress and modernization in alignment with this digital transformation, the university teacher stands at the core of the institution. Given the variety of roles they play, as educators, researchers, and consultants contributing to community service, their digital empowerment has become an essential and urgent objective. This is particularly significant in light of the challenges posed by globalization, which demand enhanced research, training, skill development, and the acquisition of new competencies and approaches to keep pace with ongoing technological change.

As a result, it has become necessary to implement training procedures that align with the requirements of university teachers' adaptation to digital technological transformation. In this context, the present research paper seeks to identify what are the essential requirements for the digital empowerment of university teachers?

This main question gives rise to the following sub-questions:

- What is digital empowerment for the university teacher?
- What are the necessary requirements for the digital empowerment of the university teacher?
- What is the role of the university teacher in the context of the digital transformation of higher education?

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

- What is the impact of distance learning on the quality of higher education?

Significance of the Study:

The importance of this study lies in the subject matter itself, particularly in light of the recent advances in digital technologies, which have increasingly influenced various sectors, chief among them, the education sector. Education is considered the cornerstone of any country's development and must be given utmost attention to ensure its continued effectiveness. This is especially true for university teachers, who are the key agents in the educational process and whose digital empowerment is essential for achieving better quality and efficiency in the outcomes of higher education, particularly in terms of graduates' readiness for the labour market.

Objectives of the Study:

- To identify the requirements necessary for the digital empowerment of the university teacher.
- To examine the role of the university teacher within the digital transformation of higher education.
- To explore the impact of distance learning on the quality of higher education.

2. *Theoretical Framework of the Study*

2.*1 Definition of Empowerment*

Empowerment refers to granting individuals the authority and responsibility, and giving them the freedom to perform their tasks in their own way without direct interference from management, while also providing all necessary resources and creating a supportive work environment that prepares them both professionally and behaviorally, along with complete trust in their abilities.(1)

Empowerment is also seen as the investment in the vast reservoir of latent and existing energies possessed by individuals across various levels of expertise.(2)

Accordingly, empowerment can be defined as the investment in the human resource (faculty members, university teachers, researchers) to foster creativity, innovation, and scientific productivity through the provision of an enabling environment that facilitates their performance.

2.2 *Definition of Digitalization*

Terry Kunny views digitalization as the process of converting various forms of information, such as books, periodicals, recordings, photographs, and moving images, into a format readable by computer technologies (i.e., digital content in Arabic and related software).

Doug Hodges considers digitalization to be the process of converting intellectual content stored on traditional physical media, such as journal articles, books, manuscripts, maps, and others, into digital form.(3)

Thus, digitalization can be defined as the process of acquiring a collection of

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

information and converting it into electronic texts, managing it through the transformation of available informational sources from traditional formats into electronic images that can be accessed using computer software.

2.3 *Definition of Digital Empowerment*

Digital empowerment is the process of equipping individuals with the knowledge and skills necessary to enable them to effectively cope with rapid digital transformations. It focuses on ensuring access to technology and utilizing its capabilities and features for development and improvement, making these accessible to all individuals regardless of their economic or social status.(4)

Digital empowerment also refers to the scientific application of digital competence in developing individual life skills and enhancing one's capabilities in the information society. When individuals use their digital power effectively, empowerment means increased control over life and improved adaptability to information technology. People acquire new capacities and methods for participation and self-expression in a networked society.(5)

Accordingly, digital empowerment can be defined as the ability to employ information technology in the educational process in a secure, skilled, efficient, confident, attentive, and controlled manner. The goal is to build competencies and produce capabilities that can keep pace with the digital age, including the development of human resources represented by well-trained and qualified university teachers.

2.4 *Definition of a University Teacher*

A university teacher refers to the group of individuals who are responsible for delivering and ensuring the effective functioning of the pedagogical process at the university. They carry out various duties and responsibilities such as teaching, guiding students, conducting scientific research, and supervising academic work.(6)

The university teacher is recognized as a central pillar in the system of higher education, across teaching, research, community service, and contributions to overall development. They represent the backbone of the university's advancement and are considered the key to every reform and the foundation of all progress. The success of the university largely depends on their competence and productivity.(7)

3. Requirements for Digital Empowerment

Cognitive Requirements:

These include knowledge of the basics of digital technology, such as how to use computers, the internet, and various applications. They also encompass the ability to search for, evaluate, and effectively utilize information.

Skill-based Requirements:

These refer to the ability to use digital technologies to perform various tasks, such as creating, editing, and sharing content, as well as collaborating with others. They also include problem-solving and decision-

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

making abilities using digital tools. All of these features are offered to our partners through a wide range of services and professional certifications in various digital domains.

Technical Requirements:

From a technical perspective, this entails the ability to handle technical issues related to digital technologies, such as troubleshooting problems and setting up devices and software.(8)

4. Stages of Digital Empowerment

Digital empowerment is not an instantaneous process or a decision that materializes as soon as it is made. Rather, it involves a series of deliberate steps and stages that must be thoughtfully planned and implemented, whether by an individual or by a leader seeking to equip their team. Below are the essential steps to undertake:

4.1 *Capacity Building*

Begin by identifying your strengths and weaknesses, and work on enhancing and prioritizing them. Every individual possesses unique abilities that distinguish them from others, and it is essential to nurture these, particularly those related to technology and the digital age.

4.2 *Preparation and Training*

Next is the preparation and training stage. This is where organizations such as Newversity have contributed significantly by developing numerous educational institutions through their training programs and various professional certifications. Given the vast scope of the technological world, the preparation and training process must be carried out under the supervision of specialized entities to ensure a scientifically grounded and methodologically sound approach.

4.3 *Learning New Digital Skills*

This stage involves mastering a broad set of skills relevant to the educational and training fields, such as creating presentations, preparing educational or training content, and designing instructional and training materials. These are skills that many institutions and educational bodies have been trained in through structured programs. Other digital competencies also fall within this stage.

4.4 *Digital Empowerment*

This final stage refers to reaching a level of proficiency where the digital skills acquired become an integral part of one's personality, not merely learned abilities. In today's digital age, there is always room for advancement and a continual need for growth and evolution.(9)

5. Field Framework of the Study

5.1 *Research Methodology*

This study relied on the descriptive method, which is a form of systematic scientific analysis and interpretation used to describe a specific phenomenon or problem. The method involves quantitatively depicting the phenomenon by collecting data for thorough analytical examination. This approach was appropriate for this research as it enabled us to capture the opinions of university teachers regarding their use of digital technologies in education, assess the availability of the necessary requirements both at the individual and institutional

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

levels, and identify the various challenges they encounter.

5.2 *Data Collection Tools*

Considering the nature of the study, we chose to employ a questionnaire, defined as a set of questions directed to the respondents, in this case, university teachers. The questionnaire's purpose was to engage participants from the sample to respond to the questions for subsequent analysis. It was structured into three sections. The first section contained 5 questions related to personal information. The second section comprised 9 questions. The third section included 6 questions. The questionnaire was distributed to the teachers accordingly.

5.3 *Study Population*

A fundamental step for any researcher before initiating a study is to clearly define the study population. In the current research, the population consists of the faculty members at the University of Echahid Cheikh Larbi Tébessi – Tébessa, totalling 933 professors. A random sample representing 10% of the population was selected across various faculties, resulting in a sample size of 93 teachers, who constituted the study's participants.

5.4 *Sample Characteristics*

The characteristics and features of the research sample serve as the practical background from which we interpret the relationships between the study variables. Defining the characteristics and traits of the studied population provides a comprehensive view of its homogeneity and diversity, as well as its relevance to the research questions and issues under investigation.

Based on this foundation, we proceed with a quantitative analysis of the personal data collected from the faculty members at the University of Echahid Cheikh Larbi Tébessi. Personal data constitute a realistic and practical background that enables us to perform quantitative analysis of the field data and link it to the theoretical framework, with the aim of validating the study's findings.

Table 1. The characteristics of the current study's sample

Study Variables	Frequency	Percentage
Gender		
Male	44	55%
Female	36	45%
Total	80	100%
Age		
[30-40[	20	25%
[40-50[	20	25%
[50-60[	30	37.5%
More than 60	10	12.5%
Total	80	100%
Experience		
Less than 05	10	12.5%
[05-10[	10	12.5%
[10-15[	30	37.5%
[15-20[	15	18.75%
[20-25[	10	12.5%
Above 25	5	6.25%
Total	80	100%
Degree		
Doctorate of Science	45	56.25%
LMD System Doctorate	20	25%
State Doctorate	15	18.75%
Total	80	100%
Rank		
Lecturer B	40	50%
Lecturer A	25	31.25%
Professor	15	18.75%
Total	80	100%

Source: Meklati & Mehri

Table (1) shows that the majority of the study sample consists of male respondents, representing 55%, while the remaining 45% are female. Despite

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

the relatively close percentages, this indicates a general balance between genders in higher education. This distribution logically reflects the reality on the ground. However, due to the random nature of the sample, it is possible that an equal probability of selection among members of the research population was not achieved, especially given the variation in academic disciplines.

Regarding the age variable in Table (1), the data reveals that respondents are distributed across different age groups. A total of 30 individuals, representing 37.5% of the sample, fall within the [50–60[age range. This group plays a prominent and influential role, as its members continue to exhibit diligence and dedication and possess extensive experience due to their seniority. This is followed by 20 respondents (25%) in the [30–40[age group, with an equal percentage in the [40–50[age range. This balanced distribution reflects a rejuvenation policy within the university teaching staff, as well as current recruitment strategies. Meanwhile, the proportion of those over 60 years old is lower, at 12.5%, which may indicate a wave of retirements in recent years. It is worth noting that university professors are permitted to work until the age of 70, making this age group the most experienced.

In addition to the above, the statistical analysis of the data in Table (1) related to years of experience indicates that 30 respondents (37.5%) have between 10 and 15 years of seniority. Meanwhile, 18.75% of respondents fall into the 15–20 years category. An equal proportion of respondents (12.5% each) have experience of less than 5 years, 5–10 years, and 20–25 years in university teaching. Additionally, 5 respondents (6.25%) possess more than 25 years of experience. These results suggest that the majority of the study sample comprises individuals with high to moderate levels of professional experience, supported by a smaller group of early-career faculty members.

The data in Table (1) also show that, in terms of academic qualifications, the majority of respondents (56.25%) hold a Doctorate in Sciences, a degree from the traditional (classical) higher education system in Algeria, which typically includes a four-year Licence degree followed by a two-year Magister, and then a Doctorate. This is followed by 25% of respondents holding a Doctorate under the LMD (Licence–Master–Doctorate) system, consisting of three years of Licence, two years of Master, and at least three years for the Doctorate. Lastly, 18.75% of the sample possess a State Doctorate, typically involving the Licence, a period as a teaching assistant, then the Magister, and finally the State Doctorate. This distribution reflects the ongoing transformation and diversification in Algeria's higher education policy.

The data in Table (1) concerning the academic rank variable indicate that the majority of respondents hold the rank of Lecturer Class B, representing 50% of the sample. This is followed by Lecturer Class A at 31.25%, while those holding the rank of Professor account for 18.75%. This distribution is consistent with the data presented in the table

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

related to the academic qualification variable, as well as the table concerning years of experience, confirming a logical alignment between rank, academic degree, and seniority.

Table 2. Requirements for the Digital Empowerment of University Teachers

Variables	Frequency	Percentage
Your university has high-speed internet and an internal communication system between faculties		
Yes	78	97.5%
No	2	2.5%
Total	80	100%
Have you received training on digital programs used in distance education?		
Yes	75	93.75%
No	5	6.25%
Total	80	100%
If the answer is Yes		
By the University	2	2.66%
Self-training	70	93.33%
External training centers	3	4%
Total	75	100%
Improved use of operating programs and multimedia software		
Yes	68	85%
No	12	15%
Total	80	100%
You store your lectures, files, and workshops on one of the following applications		
Dropbox	10	12.5%
Google Drive	70	87.5%
Total	80	100%
University training programs contributed to:		
Improvement in setting up interactive lessons via the platform	60	75%
Planning of electronic pedagogical content	10	12.5%
Diversification of your teaching tasks both in-person and virtually	10	12.5%
Total	80	100%
You use search engines to select scientific references and sources for the subject you teach		
Yes	78	97.5%
No	2	2.5%
Total	80	100%
You believe that distance education has increased your engagement in teaching		
Yes	50	62.5%
No	10	12.5%
Somewhat	20	25%
Total	80	100%
Your opinion on holding seminars and conferences remotely:		
Increased teachers participation rate	76	95%
Negatively affected the quality of scientific contributions	4	5%
Total	80	100%

Source: Meklati & Mehri

The results of Table (02) indicate that 97.5% of respondents reported that their university provides high-speed internet access and an internal communication system between faculties, compared to only 2.5% who reported the absence of internet access, an extremely low percentage. This reflects the availability of ICT infrastructure, considered a fundamental prerequisite for the implementation of digitization in higher education. It highlights the transition of higher education and scientific research from traditional administrative and pedagogical management to a digitally-driven environment, enabling an effective communication system between the components of the educational process: the teacher, the student, and the administration.

This communication spans pedagogical and educational interaction, as well as administrative operations between administration and faculty members, or between administration and students. Moreover, the data show that only 6.25% of the respondents had not received training on digital programs, whereas 93.75% had undergone training on digital

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

tools used in distance education. Of those trained, the vast majority (93.33%) reported acquiring these skills through self-learning, while 4% were trained by external institutions, and 2.66% received training provided by the university.

These findings underscore the establishment of both synchronous and asynchronous learning environments, which are heavily reliant on self-directed learning and interactive engagement. This, in turn, fosters professional development and research, positively influencing educational outcomes and contributing to the attainment of higher education objectives.

Furthermore, such training has led to improved proficiency in using operating systems and multimedia control software (such as for images and videos), with 85% of the respondents affirming competence in this area. Conversely, 15% indicated a lack of such skills, primarily attributed to the absence of adequate training.

All of these elements fall under the category of cognitive requirements, that is, the foundational knowledge of digital technologies, including the use of computers, the internet, and various software applications.

Regarding the use of storage applications for lectures, files, and workshops, the data reveal that 87.5% of respondents store their teaching materials on Google Drive, while 12.5% use Dropbox. This indicates a widespread utilization of digital storage tools and data exchange platforms such as websites, databases, email services, and communication applications of various types. The adoption of these tools has been greatly supported by university-organized training sessions, aimed at enhancing the implementation of interactive lessons on digital platforms, with 75% of respondents affirming improvements in this area.

Furthermore, 12.5% of the participants equally reported engaging in diversified teaching tasks, both face-to-face and virtual, as well as in planning electronic pedagogical content. These respondents are characterized by technological literacy, enabling them to effectively design and deliver digital learning materials, while also being attuned to the needs and learning characteristics of students in online learning environments.

With regard to the use of search engines to select academic references and scientific sources, an overwhelming 97.5% of respondents confirmed regular use, whereas only 2.5% reported otherwise. This behaviour supports the development of cognitive competencies, allowing educators to update their instructional content, diversify information sources, and save time by accessing digital materials easily and efficiently, anytime and from anywhere, which, in turn, enhances their research and analytical abilities.

Concerning student engagement in distance education, 62.5% of respondents indicated a high level of participation, attributing this to students' proficiency in using modern digital tools, and their perception of online learning as more cost-effective and time-saving. Meanwhile, 25% described student engagement as moderate, and 12.5% reported low levels of participation, largely due to students' lack of access to digital

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

devices or poor internet connectivity, which impairs their ability to fully engage in distance education.

Virtual Conferences and Seminars Facilitate Academic Research. The data reveal that 95% of the respondents acknowledged that virtual conferences and seminars have facilitated their research activities, while only 5% denied this effect. This finding underscores the significance of virtual academic forums in enabling the sharing of resources and intellectual ideas with colleagues and fellow researchers. Moreover, these platforms provide continuous access to current and regularly updated information, which in turn supports the ongoing enhancement of academic knowledge and the achievement of research objectives.

Table 3. The Role of the University teacher in the Context of the Digital Transformation of Higher Education

Variables	Frequency	Percentage
How do you deliver your lessons and lectures?		
In-person	40	50%
Distance learning	40	50%
Total	80	100%
Preferred method for delivering distance learning lessons		
Uploading PDF lessons	10	12.5%
Google Meet	25	31.25%
Google Classroom	20	25%
Interactive Lecture	25	31.25%
Uploading Video		
Total	80	100%
Do you think interactive learning is more preferred by students than in-person learning?		
Yes	10	12.5%
No	20	25%
Somewhat	50	62.5%
Total	80	100%
Do you believe that new teaching methods have improved student learning?		
Increased student achievement	10	12.5%
Helped facilitate the teaching process	40	50%
Caused student absenteeism in-person	30	37.5%
Total	80	100%
Do you think students are engaging more with the platform?		
Yes	30	37.5%
No	40	50%
Somewhat	10	12.5%
Total	80	100%
Do you supervise students remotely?		
Yes	70	87.5%
No	10	12.5%
Total	80	100%

Source: Meklati & Mehri

Lectures are delivered both in-person and online at an equal rate of 50%, reflecting the flexibility granted to students by liberating them from the constraints of time and place. This supports the principle of continuous education and lifelong learning. In-person teaching requires university teachers to possess competencies related to instructional duties as well as psychological and pedagogical interaction with students. On the other hand, distance education necessitates mastery of Information and Communication Technologies (ICT) for effective online teaching and learning.

Regarding the preferred methods of online instruction, 31.25% of respondents favour Google Meet and interactive lectures, while 25% prefer Google Classroom. A further 12.5% favour uploading PDF-format lessons. Students follow these online lessons either synchronously, when attending via the usual live format, or asynchronously from their homes. The use of various e-learning tools such as email, interactive videos, chat platforms, and video conferencing enhances students' understanding, motivates active participation, and guides them toward grasping core concepts.

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

According to the responses of the surveyed faculty members, 50% indicated that students prefer interactive learning over traditional face-to-face instruction to some extent. In contrast, 25% of the respondents outright denied this preference, while 12.5% affirmed it. The lack of student engagement is attributed to their limited interest and negligence toward distance education, the lack of modern technological tools, and difficulty in understanding the subject matter when delivered online. These factors collectively hinder students' adaptation to the new mode of instruction, leading to lower academic achievement.

Nevertheless, the introduction of new teaching methods has reportedly improved student learning and facilitated the teaching process, as indicated by 50% of respondents. On the other hand, 37.5% believe that it has contributed to increased absenteeism in face-to-face sessions, while 12.5% observed an improvement in student achievement due to these methods.

Regarding the use of the chat platform, 50% of respondents reported that students do not actively engage, while 37.5% observed active participation. An additional 12.5% provided a moderate assessment. This disparity is largely due to students' limited access to digital tools or weak internet connectivity, which restricts their ability to engage in distance learning.

An overwhelming 87.5% of the surveyed faculty members preferred supervising students remotely, compared to only 12.5% who favoured in-person supervision. This reflects a solid base of knowledge and technical proficiency among both teachers and students in utilizing modern technologies. It also enables effective knowledge exchange and experience sharing through online discussion and interaction.

6. *Conclusions*

✓ The integration of digital technologies into the educational process has facilitated a shift toward new approaches to teaching and learning.

✓ Digitalization is considered one of the quality standards in higher education, as it contributes to enhancing the educational process and improving the outcomes of university training programs in alignment with various fields of development.

✓ Digital empowerment of university teachers enhances their pedagogical and instructional skills, thereby contributing to the overall quality of higher education. In the context of digital education, the professor's role shifts from the mere transmission of knowledge to guiding and activating the learning process.

✓ Empowering teachers digitally plays a vital role in the success of the educational process and in graduating cohorts of qualified individuals capable of meeting the challenges of national development across all sectors. The quality of digital transformation is a targeted area within the national quality strategy in higher education.

✓ University professors face several challenges, including material obstacles such as fragile infrastructure and lack of appropriate digital tools, human factors such as limited technical experience among teachers and students, and technical barriers including frequent network disruptions and the inability to provide adequate protection against recurring cyberattacks.

✓ Training programs, whether organized by the university or pursued independently, on digital tools and

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)

platforms significantly contribute to the digital empowerment of university teachers.

✓ Digital empowerment enables professors to effectively use search engines to select appropriate academic references and scientific sources for both their teaching and research activities.

7. *CONCLUSION*

The goal of digital empowerment for university teachers is to ensure their continuous preparation and training in order to equip them with the ability to effectively integrate information and communication technologies into the educational process. This empowerment aims to develop national competencies capable of producing digital educational content and graduating generations with the capacity for creativity, innovation, and leadership in this domain. Such empowerment plays a pivotal role in advancing the knowledge society, shifting it from being a consumer of knowledge to a producer, thereby bridging the digital divide and contributing to the achievement of comprehensive and sustainable development goals.

8. *Bibliography List* :

1. Al-Banna, Hussein Moussa Qassem & Al-Khafaji, Ne'ma Abbas (2014). *The Organizational Empowerment Strategy to Enhance the Effectiveness of Knowledge Management Processes*. Dar Al-Ayyam for Publishing and Distribution, Jordan.

2. Sayed, Mostafa Ahmed (2004). *Human Resource Management: The Modern Management of Intellectual Capital*. Cairo, Egypt.

3. Hussein, Al-Ajmi Mohammed (2007). *Academic Development and Preparation for the Academic Profession Between Globalization and Internationalization Requirements*. Al-Maktabah Al-Asriyah for Publishing and Distribution, Egypt.

4. Sbeih, Rowa Mohammed Othman (2020). *A Proposed Framework for Digital Empowerment Mechanisms at Zagazig University and Its Relation to the COVID-19 Pandemic in Light of the Indian Experience*. Department of Comparative Education and Educational Administration, Faculty of Education, Zagazig University, Egypt.

5. 5.Bouzaabib, Bariza (2022). *Digitization and Its Role in Modernizing Higher Education in Algeria*. Journal of Public Service Quality for Sociological and Administrative Development Studies, Algeria, Vol. 5, No. 2.

6. Basyouni, Mostafa Mahmoud et al. (2022). *Digital Empowerment Requirements for Faculty Members in Egyptian Universities from the Perspective of Educational Experts*. Department of Educational Foundations, Faculty of Education, Al-Azhar University, Cairo, Egypt, Issue No. 194, Part Four.

7. Bachioua, Hussein (2022). *An Analytical Study on the Requirements for Effectiveness and Excellence of Higher Education Institutions in Algeria in Light of Academic Ethics*. Journal of Social Sciences, Vol. 20, No. 08, Algeria.

8. Basyouni, Mostafa Mahmoud et al., *previous reference*, p. 150

Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International (CC BY-NC-ND 4.0)