International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

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ARTICLE TITLE	DIGITAL TRANSFORMATION IN EDUCATION AND ITS ROLE IN THE DEVELOPMENT OF THE EFFICIENCY OF EDUCATIONAL INSTITUTIONS AND IN THE ENHANCEMENT OF THE QUALITY OF THEIR OUTPUTS
ARTICLE INFO	Leila Idiou, Sara Djabri. (2025) Digital Transformation in Education and Its Role in The Development of The Efficiency of Educational Institutions and in The Enhancement of The Quality of Their Outputs. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3961
DOI	https://doi.org/10.31435/ijitss.2(46).2025.3961
RECEIVED	01 January 2025
ACCEPTED	10 February 2025
PUBLISHED	28 April 2025
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DIGITAL TRANSFORMATION IN EDUCATION AND ITS ROLE IN THE DEVELOPMENT OF THE EFFICIENCY OF EDUCATIONAL INSTITUTIONS AND IN THE ENHANCEMENT OF THE QUALITY OF THEIR OUTPUTS

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ABSTRACT

This paper takes a close look at the idea of education that relies on digitalization. It treats it as a modern solution — and in some ways a fresh approach — within today's educational methods. The main goal here is to make clear the very central role that digital transformation plays in improving how educational institutions work, as well as to show its aims, its main advanatges, and the special features that make it stand out. To do this, the study used a descriptive–analytical method, not just to describe what is happening but also to examine, a bit deeper, the factors behind it. What we found is that adopting digital transformation as a clear strategy has become almost a must for making education better and for getting better results overall. It helps raise the efficiency of teachers and students together — and also makes the work of the institution more effective — while using fewer resources and lowering the cost at the same time.

KEYWORDS

Digital Transformation, Education, Digital Education, Educational Technology

CITATION

Leila Idiou, Sara Djabri. (2025) Digital Transformation in Education and Its Role in The Development of The Efficiency of Educational Institutions and in The Enhancement of The Quality of Their Outputs. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3961

Introduction.

Over the past few years, the wrld has witnessed a sequence of deep and rather fundamental transformations that have touched, in a quite far-reaching manner, almost every dimension of modern life. These transformations left their mark not only on the everyday routines of individuals but also on the structure and functions of economic, socal, political, cultural, and informational institutions in nearly every country worldwide. Such changes have opened wide doors to counteless possibilities of benefiting from their various dimensons, while at the same time putting before all societies a set of challenges that must be faced in order to keep pace with the consequnces and implications of these developements.

Among the most important of these transformations is the pheomenon usually refered to as digital transformation — a phenomenon closely and almost inseparably linked to the technological shifts and breakthroughs that have been taking place globally during the last few decades. This phenomenon has been clearly manifested in the advancemnts of communication technologies, computer systems and devices, information tech, satellites, network technolgies, social media applications, web apps, artificial intelligence tools, big-data applications, and smart educational platforms, among many others. Moreover, the reach and effect of this digital transformation extend to cover economic entities, governmnt and administrative institutions, social and health organizations, and of course educational institutions (Asmaa Mohammed, 2024, p. 87).

The rapid growth of information and communication technology, together with the massive impact of globalization and the spread of the Internet, has led to what could be seen as a new paradigm in education — that is, digital education. It has now become possible to build many educational networks that achieve their goals faster and with much lower costs. It also became possible to realize electronic integration between educational and training programs at the global level, and to build both international and local information networks designed to make access to information easier, to allow its exchange, and to encourage participation in data bases, which guarantees a dynamic and interactive learning process.

Considering all of the above, the research problem of this study can be sumed up in the following main question: **What is digital transformation really, and what role does it play in developing educational institutions and in improving the quality of their outcomes?**

Based on this research problem, the study aims to:

• Identify, by consulting contemporary literature, the theoretical framework of digital transformation within educational institutions.

• Examine the role of digital transformation in enhancing the performance quality of both the teaching staff and the institution as a whole.

• Determine how digital transformation contributes to improving students' comprehension and academic achievemnt.

• Reveal the overall impact of digital transformation on education quality and its results.

This study comes at the same time as national initiatives and official institutional efforts aimed at achieving digital transformation across different sectors, restructuring the whole educational system (especially higher education), and adopting digitization as one of the key mechanisms used to raise the efficiency of the educational process and to improve the quality of its results.

For analyzing this topic, the descriptive-analytical method was used as the main research approach, in order to explain the most important theoretical foundations related to digital transformation in the field of education. According to this approach, the study is divided into three main parts: the first discusses the theoretical background of digital transformation, the second addresses the theoretical literature about digital education, and the third part talks about the role of digital transformation in improving institutional efficiency and enhancing the quality of educational outputs.

First: Theoretical Literature on Digital Transformation

The term"digital revolution" is the expression used to refer to the present era, beginning from the appearance and proliferation of computers and computing devices, as well as all other devices that operate through digital methods, along with the multitude of consequences that have ensued as a result of recent technological developments. The reason why the modern era has come to be called"the digital age" is that the basic operational principle of the computer rests upon the two digits (1 and 0)—a principle known as the binary system, which is used in dealing with the electrical circuits that make up the computer device.

1.1. Digitization and Digital Transformation

1.1.1. The Concept of Digitization

According to the Oxford Dictionary, the verb"to digitize"—derived from the term"digital"—is defined as the act of converting images or sound into a digital form that can subsequently be processed by a computer. The dictionary lists, as equivalents for the term"digitization, " the following: *digitization, digitizer, digitalization.* According to the *Dictionary of Library and Information Science,* digitization is the process whereby data are converted into a digital form so that they may be processed by the computer.

The definition of digitization can also be traced through Taylor's characterization, wherein he describes it as"everything that possesses neither color, nor size, nor weight, and is capable of traveling at the speed of light, being considered the smallest element of the DNA of information." Schloemoff, on the other hand, regards the term"digitization" as more comprehensive than what others might mean when they refer merely to"scanning, " for digitization is not confined to scanning alone but rather includes the conversion of traditional materials—such as photographs, books, sound recordings, and video recordings—into a computer-readable format, regardless of whether that conversion process necessitates the use of scanners or not (N. A. Yass, 2013, pp. 16–17).

1.1.2. The Concept of Digital Transformation

According to the *Gartner* glossary, digital transformation is"the process of changing from the analog form to the digital model, " while digitization is"the process of converting the analog process into a digital form without any material or substantive changes to the process itself" (Farjani, 2022, p. 28).

Digital transformation is also defined as"the process of representing objects, images, files, or (analog) signals by using a discrete set composed of separate points, " and it also denotes the shift from traditional and familiar methods to electronic archiving systems—a transformation that necessitates a comprehensive understanding of all existing procedures and methods, and the selection of those most suitable to the environment seeking such a transformation (Abbas, 2022, p. 166).

Digital transformation is further defined as"a process whereby governmental sectors or corporations shift to a business model that relies on digital technologies in order to innovate products and services and to create new channels of revenue that increase the value of their products" (Farjani, 2022, p. 29).

It is also defined as"a set of digital methods and activities that enable us to produce, disseminate, and receive scientific content in its various forms through electronic devices connected to the Internet, in an interactive process between the sender and the receiver."

Another definition states that it is"a process by which institutions transition from the traditional work model to another model that depends on integrating digital technology into the business world, and that consists in transforming vital and essential services connected with serving individuals, institutions, and diverse investments from their traditional form to the smart electronic form" (Chaouchi & Khellouf, 2023, p. 19).

A further definition describes it as"a process associated with the intensive use of digital technologies and information technologies, through which innovative products and services are created, operational efficiency is improved, and productivity is increased, ultimately reaching the highest levels of achievement and efficiency with the aim of capturing a larger share of clients and audiences and gaining competitive superiority" (Obeida & Al-Shami, 2023, p. 3).

From the foregoing, digital transformation may be defined as a large-scale process of change in the way institutions and corporations create value for their customers, through the application of digital technologies. Despite the relative clarity of this definition, it may still be observed that there remains some confusion in understanding the true nature of digital transformation: What exactly constitutes digital technologies? How precisely will the institution proceed to improve, alter, and transform the process of value creation for its clients?

1.1.3. The Relationship between Digitization and Digital Transformation

- **Digitization as a First Step:** Digitization constitutes the foundational basis upon which digital transformation is constructed, as it provides the digital data and the necessary infrastructure.
- **Digital Transformation:** Whereas digitization concentrates on the purely technical aspect, digital transformation necessitates fundamental changes in organizational culture and in business strategies in order to achieve the fullest possible benefit from digital technology (B. A. Fatima & B. A. Nadia, 2025, pp. 503–504).

1.2. The Benefits and Significance of Digital Transformation

There is no doubt that digital transformation offers numerous and diverse benefits, not only for customers and the general public but also for governmental institutions and corporate entities. Among its advantages is that it significantly reduces costs and effort, improves operational efficiency, and regulates organizational processes. Furthermore, it contributes to the enhancement of quality and the simplification of procedures necessary to obtain services provided to beneficiaries. In addition, it creates opportunities for the provision of innovative and creative services that go beyond the conventional and traditional methods of service delivery (Farjani, 2022, p. 29).

The importance of digital transformation may be summarized as follows:

- **Improvement of Efficiency:** Digital transformation contributes to the acceleration of administrative and operational processes, the reduction of errors, and the enhancement of the quality of services delivered. It also plays a role in the simplification of procedures, thereby making it easier for individuals to access services in a faster and more effective manner.
- **Enhancement of Competitiveness:** Institutions that adopt digital transformation are empowered to provide innovative and creative services that transcend traditional methods, thereby granting them a competitive advantage in the marketplace and reinforcing their ability to generate new opportunities.
- **Improvement of Customer Experience:** Digital transformation enables institutions to collect and analyze data with a high degree of accuracy, which helps them to gain a better understanding of customer

needs. This, in turn, is reflected in the provision of improved services and a more integrated experience that effectively meets customer expectations.

- **Achievement of Transparency:** Digital transformation provides institutions with tools that enable them to monitor performance in real time, which promotes transparency and increases the clarity of operations. It also facilitates access to information and guarantees that procedures are clear and comprehensible for all stakeholders.
- **Cost Reduction:** Digital transformation assists in reducing operational costs and the amount of effort expended by improving efficiency and streamlining processes, which enables institutions to conserve resources and reinvest them in other areas.
- **Achievement of Sustainable Development:** Digital transformation supports the improvement of critical sectors such as education, healthcare, and energy by means of innovative technologies that reduce negative environmental impact. It also contributes to the construction of an intelligent and sustainable society that promotes comprehensive and inclusive development (B. A. Fatima & B. A. Nadia, 2025, p. 505).

From the foregoing, it may be concluded that digital transformation constitutes a fundamental factor for facilitating access to information, improving efficiency, and increasing productivity. It also contributes to the development of service quality, reinforces transparency, and creates new employment opportunities—making it a principal driver of sustainable development and innovation across diverse economic and social sectors.

1.3. The Objectives of Digital Transformation

The primary objectives anticipated from digital transformation can be summarized as follows:

- To provide an immense volume of participatory information on digital media.
- To preserve the original source of information from deterioration or damage.
- To facilitate the process of searching within digital collections and retrieving information through numerous means and methods.
- To reduce costs that are associated with traditional means and to improve existing services while creating new ones.
- To provide information services through innovative technologies such as digital reference service and machine translation.
- To make information available to the largest possible number of beneficiaries and stakeholders through digital platforms and to archive it as digital resources that may be accessed both remotely and asynchronously.
- To minimize the time required for information to travel from its original source to its recipients and users.
- To ensure the continuous updating of digital information and to provide access to original digitized materials.
- To elevate the level of scientific research by upgrading advanced information services (Belkheir & Bousmina, 2023, p. 8).

1.4. Implementation of Digital Transformation

The implementation of digital transformation is carried out through the deliberate and systematic mobilization of technology, data, human resources, and organizational processes, as detailed below (Farjani, 2022, pp. 32–33):

- **Technology:** The construction of digital transformation is achieved through the establishment of an integrated system composed of hardware devices, operating systems, storage media, and software programs that operate within technical environments and information centers, allowing for the uninterrupted and efficient utilization of all assets. Furthermore, it is essential to ensure an adequate and reliable level of service for the members of the institution, its clients, and its suppliers through the deployment of professional teams responsible for managing the technical system and the network infrastructure, whether this infrastructure is local or cloud-based.
- **Data:** Institutions are expected to engage in continuous efforts for the organized and effective management and analysis of data, with the objective of providing reliable, comprehensive, and high-quality information and procedures. This also requires the provision and development of appropriate tools for statistical analysis, data mining, and future forecasting. Data must be consistently monitored to ensure their continuous flow and optimal use in a manner that aligns with the goals and expectations of the institution.

- **Human Resources:** Human resources constitute a vital and indispensable component without which institutions would find it difficult, if not impossible, to implement digital transformation. It is necessary to provide qualified personnel who are capable of using and analyzing data for the purpose of making effective decisions. The planning and execution of organizational visions require human competencies as well as scientific and practical expertise, coupled with a deep-seated belief in the necessity of change and development.
- **Processes:** These consist of a set of organized and interconnected activities or tasks that produce a specific service or product for the benefit of stakeholders. Institutions must establish an effective technical framework that permits the development and optimization of processes at both the internal and external levels. This is crucial to guarantee the optimal implementation of digital transformation. Such an approach involves ensuring internal and external alignment in the execution of processes, as well as the presence of monitoring mechanisms that constitute one of the principal keys in regulating the inputs and outputs of the organization.

Second: Theoretical Literature on Digital Education

It has become imperative for educational institutions to interact with and adapt to the realities imposed upon them by the era of globalization and rapid transformations, through the employment of modern technologies and the integration of information and communication technologies within their educational programs and operations, in harmony with this technological leap that has reshaped many traditional concepts.

2.1. The Concept of Education

Psychologists have differed in the details of defining the concept of learning; however, they have agreed upon the principal and overarching definition that regards learning as a change in behavior. Thus, if psychology as a field is understood to be the study of behavior, then learning, as a field, is the science that focuses on the change that occurs in this behavior.

Guilford defines learning as the change in an individual's behavior that results from stimulation, and the nature of this stimulation is derived from simple physical stimuli that elicit certain responses and extend to situations of great complexity. Learning is also defined as the relatively permanent change in performance or behavior that results from experience, practice, and training; whereas if such change is due to other factors, such as growth or maturation, then it is not regarded as learning (Al-Rawadiah et al., 2012, p. 46).

Education, on the other hand, is a communicative activity that aims to stimulate the learner's motivation and to facilitate the learning process. It consists of a set of activities and decisions that are taken by the teacher or the student within the educational situation. Education is also the science that concerns itself with the study of teaching methods and techniques and with the various forms of organizing learning situations in which students interact in order to achieve the intended goals. Education may also be seen as a purposeful design or engineering of the educational situation in a certain manner such that it leads to learning, or as the management of the learning process under the supervision of the teacher (Al-Mousawi et al., 2022, p. 63).

2.2. Digital (Electronic) Education and Learning and Its Development

Digital education—or electronic education—are two terms that carry virtually the same meaning. It is a broad concept, and for this reason the activities that fall under its rubric are numerous and varied. Indeed, one is, in most cases, engaging in some form of electronic learning merely by using a computer. It is therefore possible to say that every person who has used a computer has, in reality, experienced electronic learning in one way or another.

In earlier times, such activities were categorized under various other labels such as computer-based learning, web-based learning, or Internet-based learning, among others—and all of these fall under the umbrella of electronic learning. E-learning is thus a wide-reaching term that encompasses all methods that utilize electronic devices for the purposes of education or training. It exhibits a great deal of diversity in its structure and level of complexity, ranging from the simple use of electronic tools—such as the use of slides and basic interaction with electronic content—to complex and sophisticated uses such as simulation programs and role-playing activities.

One of the key challenges facing the formulation of a universally agreed-upon definition of e-learning is that this concept has evolved from earlier concepts—many of which were themselves never agreed upon, and many are no longer in use. E-learning emerged after the earlier conceptions such as computer-based instruction, and when the Internet appeared and made it possible to deliver educational content and enable direct and indirect communication via the web, the notion of web-based training arose. Due to the multiplicity of forms of learning that rely on digital technology, the term e-learning was introduced to serve as a

comprehensive label that includes all forms of learning within this domain. Another problem that complicates the task of defining e-learning is that this concept is still evolving and taking shape and has not yet reached a state of stability or final consensus (Al-Sharman, 2019, pp. 19–20).

2.3. Definition of Digital Education

Digital education may be defined as a form of education characterized by interactivity and immediacy between the teacher, the learner, and the scientific material. This type of educational environment provides a climate of direct and instant communication within an interactive instructional framework, whereby questions can be asked and answered, and feedback can be provided in real time. It also allows the individual learner to participate in dialogues and discussions within a motivating and guiding environment, whether as an individual, as part of a pair, or as a member of a group.

Digital teaching–learning may also be defined as the teaching–learning process that takes place within a digital environment that relies on the use of digital technology in all its forms in order to bring about the intended learning, to deliver the content with all of its associated activities, skills, and assessments, and to achieve the desired educational objectives. This process involves both synchronous and asynchronous communication between the components of the educational process, whether in formal or informal contexts (Abbas, 2022, pp. 168–170).

Digital education is, furthermore, that form of education which is conducted through the media of digital information and communication technologies—such as computers and their networks, cable television networks, and satellite broadcasting systems, among others (Hussein & Ali, 2008, p. 18).

Learning in a digital environment contributes to making information resources available to the learner in a manner that facilitates access to them. Through carefully selected digital applications chosen by the teacher, communication and interaction become simple and flexible. This constitutes one of the most important characteristics of digital education, for such environments open up opportunities for self-learning and distance learning, which in turn contribute to the construction and development of the educational process for both individuals and communities.

Some define digital education as”a form of e-learning that encompasses a set of educational and scientific experiences provided to the learner through the vast capabilities made available by information and communication technology. It represents a new form of communication between expert knowledge and the learner, and such communication is digital—whether through the information network or another digital medium such as compact discs” (Abbas, 2022, p. 169).

From this conceptualization, it becomes clear that some scholars use the term”digital education” as a synonym for”e-learning, ” holding that the term is defined according to the type of technology employed. Thus, learning that takes place through computers, websites, and digital television is digital electronic learning, whereas learning through radio, analog television, or audio recordings is electronic learning of a different kind. The essence of the distinction between the two terms, therefore, appears to lie in the technology used in teaching and learning.

2.4. Objectives of Digital Education

Research in the field of educational technology often tends to have an ambitious agenda. At times, the research aims merely to enhance or increase the effectiveness of existing practices, but very often it seeks to bring about pedagogical change.

For instance, when we make use of presentation software to explain a lesson, this improves the effectiveness of existing practice by allowing modifications and additions to be made at any time—something not possible with printed versions of textbooks, for example. However, if we integrate into the material audiovisual messages such as video clips and have students conduct a discussion among themselves to analyze the key points and present their own perspectives on the topic, then we have achieved multiple educational objectives such as stimulating participation, enriching students’ thinking, and encouraging critical thinking—just to mention a few (Abdel-Halim, 2018, p. 21).

2.5. Components of Digital Education

The components of digital education may be summarized as follows:

1. **The Educational Component:** This includes students, professors, educational materials, administrative staff, financial staff, the library, laboratories, research centers, and examinations.

2. **The Technological Component:** This consists of websites, personal computers, networks, and the process of digitizing the educational component.

3. **The Administrative Component:** This includes the objectives of digital education, the philosophy of digital education, the plans, programs, and budgets of digital education, the timetables for digital education, the strategies and objectives for both the short and long term, as well as preventive monitoring to avoid deviations and corrective monitoring to address deviations in digital education programs (Abbas, 2022, p. 173).

Digital education also requires immediate and periodic responses to the environmental challenges that surround the organizational climate of the educational institution mentioned previously. These include the necessity of coordination between programs and educational institutions, addressing bottlenecks between digital and manual processes, coping with the growing demand for digital education, and combating the theft of intellectual property and the phenomenon of private tutoring.

2.6. Advantages of Digital Education

The advantages of digital education may be summarized as follows:

1. Modeling and reinforcing the frequent and effective use of technology for learning.
2. Providing learner-centered environments equipped with technology and educational resources that meet the diverse individual needs of learners.
3. Ensuring active and effective practice in studying technology through digital curricula and encouraging participation in local, national, and global learning communities that foster innovation, creativity, and collaboration.
4. Opening the way for thinking about new and innovative teaching methods that help adopt creative ideas and diverse approaches that cannot be implemented through traditional teaching.
5. Allowing for the expansion of the curriculum through exposure to local and global curricula.
6. Taking into account individual differences among learners.
7. Achieving convenience for teachers and learners when compared with traditional classrooms, and developing and improving the educational environment in a manner that stimulates innovation.
8. Developing curricula, teaching methods, and assessment approaches.
9. Making educational services accessible to all segments of society and enabling communication around the clock in a way that ensures follow-up and connection between stakeholders—thereby increasing the efficiency of training and education.
10. Developing teachers' professional skills and enhancing the quality of education in classrooms (Abbas, 2022, p. 174).

Third: Digital Transformation and Its Role in Improving the Efficiency of Educational Institutions

Digital transformation has become a necessity for all institutions and entities that aspire to development, the improvement of their services, and the facilitation of their accessibility to beneficiaries. Digital transformation does not merely signify the application of technology within the institution; rather, it is a comprehensive and integrated program that impacts the institution as a whole, fundamentally reshaping its internal methods and modes of operation and also affecting its external interaction through the provision of services to the target audience, with the goal of making those services easier and faster to obtain (Farjani, 2022, p. 30).

Electronic education, in turn, is an instructional modality that relies upon the use of electronic media, computer software, and electronic lessons that are available at any time, in addition to simulation programs and virtual laboratories. It also depends upon communication between teachers and learners, between learners and the educational institution as a whole, as well as the reception of information, the acquisition of skills, and the facilitation of interaction between the student and the teacher, between the student and the educational institution, and between the institution and the teacher.

Among the most important tools of digital or electronic education that can be utilized and invested in the teaching–learning process are: e-mail, online chat, mailing lists, educational websites, and the World Wide Web (Ketfi et al., 2020, p. 395).

This form of education does not require the presence of physical school buildings or traditional classrooms; rather, it dispenses with all the material components of education. It is connected to electronic means and information and communication networks, foremost among them the Internet, which has become an active medium for e-learning. Moreover, it serves as an effective tool for the transmission and acquisition of explicit knowledge and information, constituting a third pillar of the educational process in addition to the

teacher and the instructional content. It also represents a flexible tool for the management of the educational process, a means of communication between learners and teachers, a mechanism of interaction between educational institutions and other community institutions, and a means of learning that transcends the geographic boundaries of the educational institution as well as temporal limitations—thus serving as a tool for continuous lifelong learning.

One of the key motivations for choosing electronic learning is its convenience and its flexibility in scheduling study times, which prevents absenteeism from work—especially for those who are not full-time students. It represents an ideal solution for teaching geographically distant individuals, fulfills the principle of lifelong learning for individuals, and is characterized by the diversity of educational media and content. It also enables both synchronous and asynchronous communication between teacher and student and facilitates cross-cultural interaction (Abdel-Hay, 2011, pp. 257–258).

The role that educational media play in improving the teaching–learning process may be summarized as follows (Jamal, 2018, pp. 88–90):

3.1. Enrichment of Education

Research and studies—beginning with the audiovisual education movement and continuing through subsequent decades—have clearly demonstrated that educational media play a pivotal role in enriching education by adding unique dimensions, distinctive effects, and specialized programs. This role of educational media reconfirms the findings of research regarding the importance of educational tools in expanding learners' experiences, facilitating concept formation, and transcending geographical and natural limitations. There is no doubt that this role has been significantly magnified today owing to successive technological advances that have made the environment surrounding the school a formidable challenge to traditional teaching–learning methods, given the abundance of diverse communication media that present messages in engaging, vibrant, and attractive ways.

3.2. Making Education More Economical

What is meant here is making the educational process more cost-effective by increasing the ratio of learning outcomes to their cost. The principal aim of educational media is to achieve measurable learning objectives in a manner that is efficient in terms of cost, time, effort, and resources.

3.3. Stimulating Student Interest and Satisfying Their Need to Learn

Through the use of diverse educational media, the learner gains experiences that arouse interest and fulfill objectives. The closer these educational experiences are to real-life situations, the more meaningful and tangible they become, and the more closely they relate to the objectives the learner seeks to achieve and the desires he or she yearns to fulfill.

3.4. Increasing Learner Experience

This refers to the preparation level that, once attained by the learner, allows learning to occur in its optimal form, making the learner more ready and more capable of engaging effectively with the educational material.

3.5. Engaging All the Learner's Senses

The engagement of all senses in the learning process leads to the consolidation and deepening of learning. Educational media help in involving all the learner's senses, thereby fostering strong and lasting connections between what the learner has learned and the meanings associated with it—resulting in a longer retention of the learning outcome.

3.6. Avoidance of Verbosity

What is meant here by"verbosity" is the situation wherein the teacher employs words and terms that do not carry for the student the same meaning that they hold for the teacher, and the teacher fails to clarify these abstract terms through tangible, concrete means that would help the learner form a mental image of them. When, however, these words are accompanied by a diversity of educational media, the term acquires additional dimensions of meaning that bring it closer to reality. This, in turn, helps to increase the convergence and alignment between the meanings of the words in the minds of both the teacher and the student.

3.7. Increasing the Student's Active Participation in the Acquisition of Experience

Educational media develop the learner's capacity for reflection, keen observation, and adherence to scientific thinking in order to solve problems. This approach necessarily leads to an improvement in the quality of learning and to an elevation of student performance.

In addition to the foregoing, educational technological media assist in the following:

- Diversifying reinforcement techniques that contribute to consolidating correct responses.
- Helping to diversify teaching methods in order to accommodate individual differences among learners.
- Contributing to the organization and continuity of the ideas formed by the student.
- Leading to the modification of behavior and the formation of new attitudes.

Educational media are thus capable of playing a highly significant role within the educational system. However, although this role is more clearly apparent in societies where this discipline has originated—as evidenced by the conceptual growth of the field on the one hand, and the numerous contributions of educational technology to teaching and training programs as indicated by the literature on the subject—its role within our Arab societies generally does not go beyond the traditional use of certain tools (where they exist), without exerting a direct impact on the learning process. This usage lacks the systematic approach that the contemporary concept of educational technology emphasizes.

Conclusions:

The fundamental aim of educational technology is to generate an impact upon learning and to activate it. For this reason, the phrase"*for the sake of learning"* was deliberately chosen in the definition in order to emphasize the primacy of learning outcomes and to clarify that learning itself is the ultimate goal, whereas teaching is merely the means by which learning is facilitated. Learning, in this context, refers to the relatively permanent change in an individual's behavior as a result of undergoing experience and practice.

On the basis of the foregoing, digital education may be considered one of the forms of learning that contributes to providing learning opportunities for all segments of society—at any time and in any place. However, a careful observer of the current reality of this type of learning in our educational institutions will readily perceive the magnitude of the gap between the theoretical dimension—documented in the texts that regulate educational life—and the actual state of educational practice. There is, in effect, almost no systematic orientation toward the use of modern technologies based on electronic media within instructional situations. This may be attributable to the absence of the necessary physical equipment in addition to the lack of adequate preparation and training of teachers in the effective use of these technologies.

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