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RESEARCH ARTICLE - ENGINEERING

Improving Quality Technological Education Using Web Systems Management Media

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Abstract

The accompanying article manages the undertakings confronting the educator with current information and the arrangement of fundamental abilities, the conceivable outcomes of imaginative instructive advancements in their securing of new information, and the improvement of skill and individual characteristics.
Figuring out how to see the impact of these media on the idea of the parts of the enlightening cycle and the positive effect. The problem is to find the best use of Information and Communication Technology media and applications in the management of Educational Institutions at the lowest cost, effort, and time.
The purpose of the research is to learn about the impact of Media use of Information and Communication Technology in improving the quality of the teaching process in the classroom (interactive classroom / interactive learning). The methodology used in the research uses the slide program presenting them through a data show device using video, audio, images, and texts, With Which was measured by the results obtained from the tables. As well as the design of an interactive video channel on YouTube and editing using the (Camtasia Studio 9).
The large and organized educational process implementation thing the response of the channel's participants was measured by students from the Institute of Technical Trainers in the Department of Electrical Techniques for the first phase of the computer applications and four Classes in the computer lab. By analyzing the results obtained found that the participation rate in the educational program exceeded 74.6% around the rate of watching and interacting with the scientific subjects reached 82.6% Program and channel for the last 60 days.

Publisher : Middle Technical University

Keywords: Information; Communication; Technology; Digital Education; Media.

1. Introduction

The various institutions of various types of productivity are striving to achieve their objectives in a very smart way and to attract the first rank compared to the leading institutions in this field. Especially with the transformation of the economy from an industrial economy to a purely information-based economy and how to exploit it best in the right conditions. Appropriate resources, whether human, financial, or material. The service sector was represented by institutions of higher education, especially vocational and technological education. The last was recognized by the variety of its exercises, its work, and its yields, while it was viewed as the stage and the wellspring of innovative Human Resources in the work market, from one viewpoint, Social and political. The utilization of current showing techniques can prompt more noteworthy adequacy in education. It is prudent to pick these strategies in light of the pedantic capability of every illustration [1, 2].

To achieve the goals and objectives of the other sectors associated with it and the role played by the relevant institutions, the vocational education institutions have to compete to improve the nature of their administrations to meet the prerequisites of the work market from one perspective and the advancement of society and the improvement of logical examination on the other.

That's the nature of professional instruction that relies upon accomplishing quality in its three essential capacities, specifically the nature of the instructional cycle, the nature of logical exploration, and network advancement, which is closely related to the quality of the other two jobs. With an adjustment in the circumstance from negative to positive, not in supreme terms, but rather extremely critical, particularly in the created nations have made incredible walks around there, which is the data and correspondence innovation as the main methods in this age because of the variety of their wellsprings of material, including programming and organization, also the extraordinary effect of their utilization Particularly in specialized instruction establishments. The significance of online innovation is particularly accentuated in new strategies for learning and schooling [3, 4]. The quick and fast advancement in data and correspondence innovation has prompted basic changes in the examples of schooling, just as the move in preparing techniques, which has prompted a move in the showing cycle, how understudies and instructors access data and collaborate in a climate of conversation and communication, The Department's assistance continued to provide all the necessary resources and to overcome the difficulties that hinder it.

Nomenclature & Symbols			
ICT	Information and Communication Technology	HD	High Definition
IT	Information Technology	e	Electronic

The increasing knowledge of how current data innovation is essential is vital to building the adequacy and adaptability of specialized and professional teaching frameworks, as well as the continuing progress of the education program to meet the changing needs of work to make a kind of adoption and blending of programming and learning, Specialist and the number of specialized trainers, and raise the logical and useful level with the importance of focusing on the application side more important than the virtual side. However, alongside this new improvement, a test has been how most emerging nations including Iraq can profit from the computerized time while keeping away from its drawbacks in school systems [5, 6].

We have changed, the new technological media from the method of teaching, and personal presence is no longer necessary to communicate with the correspondents or future information about educational activities, education, and research, and changed the way we deal with the materials of these activities' reception and processing, storage and distribution in a positive direction, Added modes of use of IT on the educational process and integrated interactive and direct programs. These days, abunch oftechniques for ICT have opened new roads and carried new difficulties for students as well as educators [7, 8].

The obligation of learning errands has moved toward the students, which decisively changed the educators' parts. This investigation zeroed in on the uses of instructors in the instructive cycle considering the utilization of data and correspondence advancements. It arrived at a positive effect on the appropriation of data and correspondence innovation. It is fundamental for potential e-students to comprehend the distinctions between an e-learning homeroom setting and an ordinary homeroom setting as there are two benefits and weaknesses of e-figuring out how the two conditions can presumably impact their general presentation as a student [9, 10].

this study Education in Tunisia investigated the truth of the utilization of data and correspondence innovation in the Tunisian instructive field. The examination found that the utilization of data and correspondence innovation in the classrooms facilitated much productivity and established social relations that constitute the expansion of activity. Technology in education is linked to having full and capable owners. from conventional schooling that includes eye-to-eye cooperation in actual study halls to online distance training. It analyzes the manners by which this change has affected the scholarly world and understudies and takes a gander at the potential long-haul results it might have caused [11, 12].

Communication Technology and Information in Cameroon Teaching practices of teachers, this study is based on a descriptive and comprehensive description of the utilization of data and correspondence innovation in the instructive cycle, in which the lobby is viewed as a genuine organization of trades between instructors, understudies, and information. It is fundamental for potential e-students to comprehend the distinctions between an e-learning homeroom setting and a regular study hall setting as there are two benefits and weaknesses of e-figuring out how the two conditions that can likely impact their general presentation as a student [13-15].

Information Media for The Development of Technical Education in Iraq, the main objective of the research is to discuss the work methods and behavior in the IT technologies used in educational institutions and the participation through the Internet and the use of virtual and electronic sites in the education process, and the quality is essentially a bet on quality; now demands high-quality formation programs, Learning processes [16, 17].

Future Perspectives of Information and Communication Technology in the Improvement of the Instructive Framework, the investigation found that the educator, the understudy, the showing cycle, the educational plan, and the authoritative initiative will change to the better-utilizing Information and Communication Technology [18, 19].

The utilization of it as an interest in the school climate for the preferences and correspondence isn't only the acquaintance of actual parts with the spots of training and data and correspondence innovation People fit for having information in a created and imaginative way. the assignments confronting the educator in giving understudies present-day information and the arrangement of fundamental abilities, the conceivable outcomes of creative instructive advancements in their obtaining of new information, and the improvement of skill and individual characteristics [20, 21].

That to reorient the objectives and strategies of the educational policy of the Middle Technical University to make maximum use and effective use of "Information and Communication Technology in education", and to build sustainable capacity at the Middle Technical University to develop Information and Communication Technology-based, teaching, and evaluation curriculum, to demonstrate the role of modern information technology in education through studying the variables affecting the student. Provide information to be used before the start or expansion of the project of the use of information technology. This avoids the University of Technical and other academic institutions from the additional costs that may result from poor planning and the expectation of the transition to teaching using information technology technologies. Statement on the importance of variables, components, and fundamentals of e-learning that can be taken by the management of the middle Technical University and other universities in the e-learning environment. The significance of the research focuses on the practical aspects of the teaching materials offered by the middle technical university, as it saves time and economic costs. Providing information to the decision-makers at the university when teaching subjects using modern information technology.

2. Research Methodology

1) Camtasia Studio 9 has been used to record lectures and classes where you can edit any recorded clips (video, sound, pictures, and texts) that support the High Definition (HD) quality of the video and download lectures and lessons on an educational channel created for this purpose on the site YouTube for the method of interactive distance learning.
2) Using the programs of image, sound, films, and texts using a data show of the science lessons in the Laboratory of the applications of the first stage calculator Department of technical techniques of the Institute of Technical Trainers / Middle Technical University, the method of direct interactive learning.
3) Using these two methods, the results obtained and the graphs were analyzed through the participation tables, the response rate to the interaction with the scientific curricula, and the impact of the use of the IT media on the percentage of participation and response to e-learning processes, see Fig. 1.

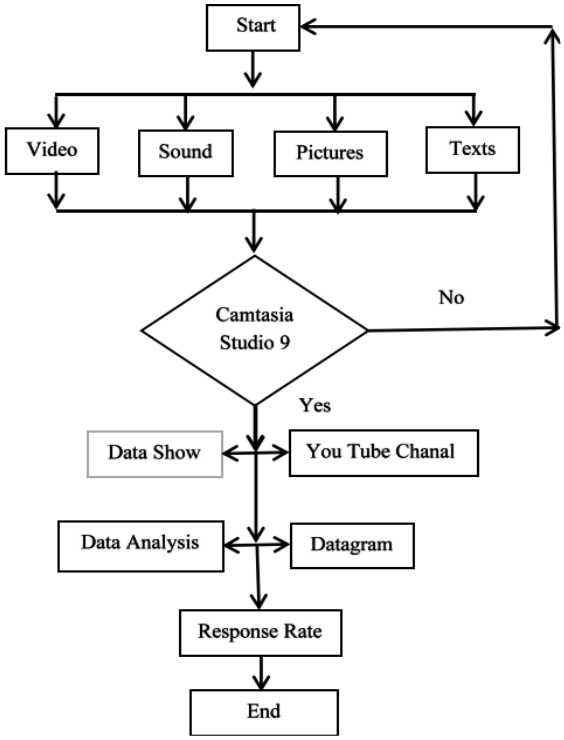

Fig. 1. RM diagram

3. Results and Discussion

Table 1 represents the total number of students and participants using the educational channel, the scientific materials were loaded after the completion of the editing program (Camtasia Studio 9).

Table 1. Study Samples

First stage	First Class	Second Class	Third Class	Fourth Class	Scientific Department
Number of students	34	42	32	36	Electrical Techniques
Number of Students Enrolled in the program	27	26	20	23	
Percentage of participants	79.4	61.9	62.5	63.8	

Through the analysis of Table 1, the percentage of participation the educational program has a rate of 66.9 % of the number of students participating in the channel through their use of smartphones and their applications, which are easily accessible and available free of charge. The results were obtained from the Percentage of views per timeline and per chart for each view state.

Fig. 2 represents the number of observations of the total time in minutes of the observations from the channel after downloading the scientific lessons (Topic 1) and completing the editing in the program (Camtasia Studio 9) and according to the latest update of the channel and here we can say that the rate of viewing and interaction with the scientific material has exceeded 87% number of students participating in the program and channel for the last 60 days.

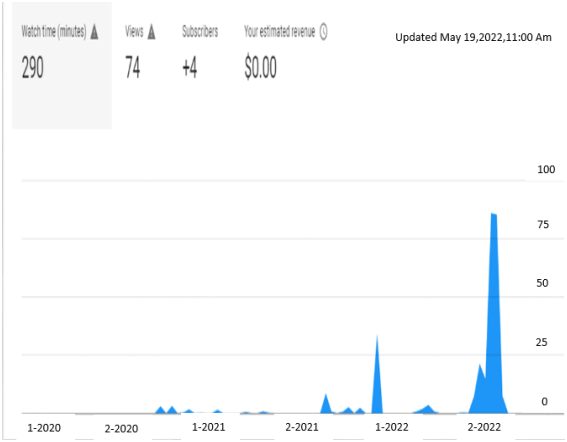

Fig. 2. Number of Views (Topic 1)

Fig. 3 represents the percentage of viewership with viewership percentage and is called audience retention where the percentage of viewership has increased.

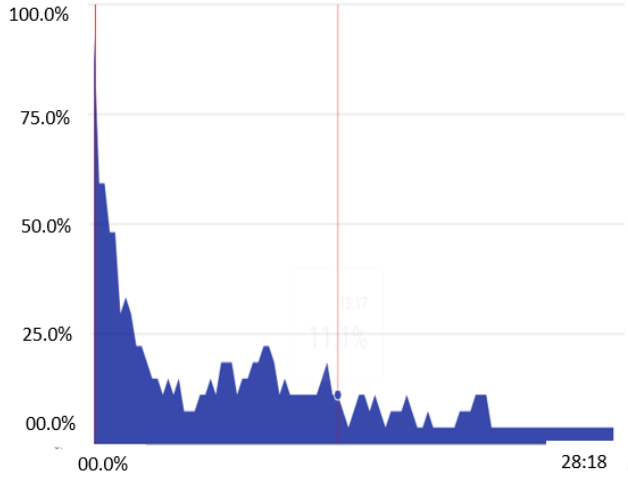

Fig. 3. Viewer's view

Fig. 4 Viewers view the video of the child and this measure helps to identify video topics and formats and creative elements that attract the most.

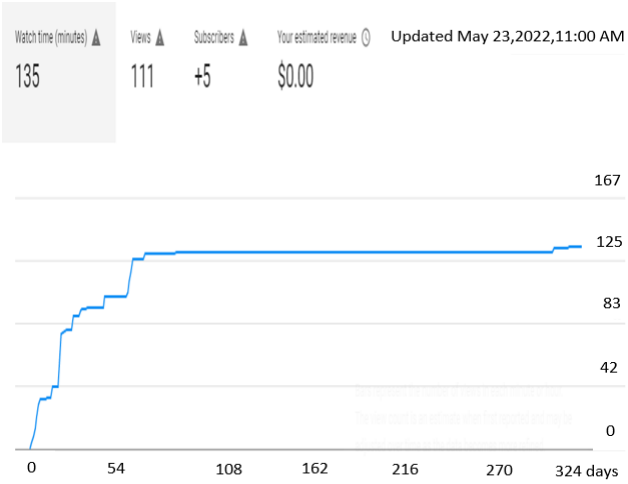

Fig. 4. Percentage of the number of views with the total time (Topic 2)

Fig. 5 represents the number of views to the total time in minutes of the observations from the channel after downloading the scientific lessons (Topic 2) and completing the editing in the program (Camtasia Studio 9) and according to the latest update of the channel and here we can say that the rate of viewing and interaction with the scientific material has exceeded the most 82.22% of the number of students participating in the program and the channel for the last 60 days.

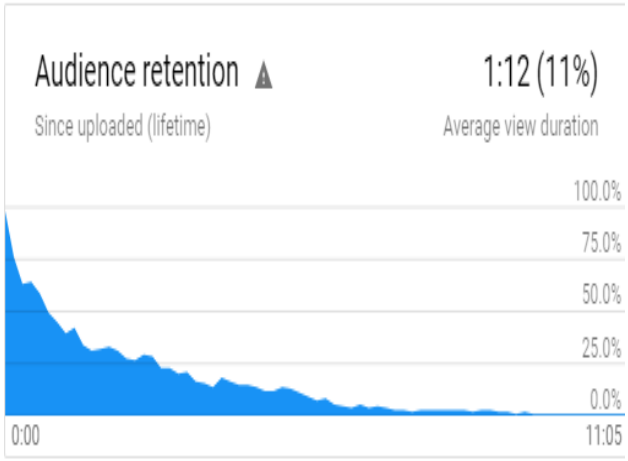

Fig. 5. Average Viewing Time to Viewership Ratio (Topic 2)

Fig. 6 represents the percentage of viewership with viewership percentage and is called audience retention where the percentage of viewership has increased.

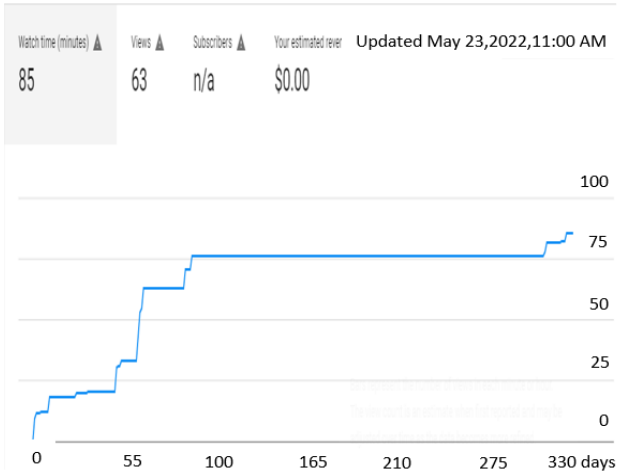

Fig. 6. The percentage of the number of views with the total time (Topic 3)

Fig. 7 represents the number of views to the total time in minutes of the observations from the channel after downloading the scientific lessons (Topic 3) and completing the editing in the program (Camtasia Studio 9) and according to the latest update of the channel and here we can say that the rate of viewing and interaction with the scientific material has exceeded 74.11% of the students enrolled in the program and the channel for the last 60 days.

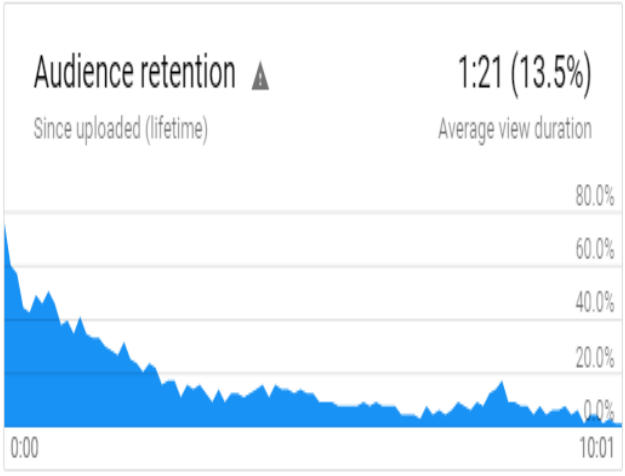

Fig. 7. Average Viewing Time to Viewership Ratio (Topic 3)

Fig. 8 represents the percentage of viewership with viewership percentage and is called audience retention where the percentage of viewership has increased.

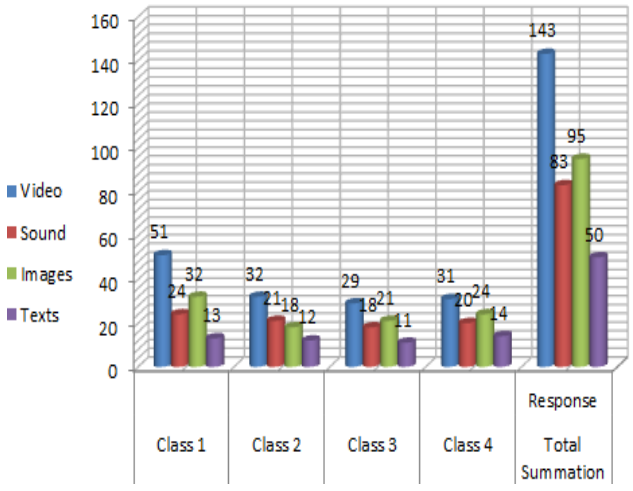

Fig. 8. The response rate for digital media

The analysis of Table 2 shows that the percentage of watch time has increased by a very large percentage indicating that the students interact quickly and quickly with the subjects using the channels offered and prepared in the program (Camtasia Studio 9) This reflects positively on the acceptance of learning using media Information technology, as well as its ease of use and access to it almost free of charge, which leads to rapid response and interaction.

Table 2. Watch Time Ratio

Viewers	Time views	Percentage Of Time, Viewers To The Number Of Views
74	290	391.8%
111	135	121.6%
63	85	134.9%

4. Using Imaging, Audio, Movie, And Text Med

Table 3 represents the type of digital data used during the presentation in the lecture hall directly and through the use of the Smart Viewer and Smart Panel Viewer in the Computer Applications Lab (1) for the first phase and the four people in the Department of Electrical Techniques in Computer Applications.

Table 3. Digital Data Type

Digital Content Data Type	Class 1	Class 2	Class 3	Class 4	Total Summation Response
Video	51	32	29	31	143
Sound	24	21	18	20	83
Images	32	18	21	24	95
Texts	13	12	11	14	50

By analyzing Fig. 8, students show that they tend to the video media in the first place, as shown in the blue color of the scheme. According to the people mentioned, the second place for average images is green (just class 2), a third of the center is red, andthe text is violet, Students watch videos, andpictures and listen. Video and visual education attract attention and make learners more interactive and participatory and analyze results very quickly among themselves. Despite these difficulties, it should be noted that students have indicated an incredible passion for using laptops. This movement produced a lot of energy and interest among students and professors even in different classes. Also, students were encouraged to study the views they did not care about in their content that the video content, images, and sound were the most remembered, and more research was done to determine why the other segments were not appreciated and gave the idea that, as students have seen, the text content was somewhat less Impact.

5. Conclusion

All the data obtained achieved the objectives of this research, and it proves that the proposed method of using Information and Communication Technology media using educational channels (interactive distance learning) as well as (direct interactive education) has provided an appropriate interactive learning environment and can be shared from anywhere and in any and is expected to provide an acceptable and a good outcome for the development of methods of presentation of lectures and scientific lessons. That's the benefit of this approach as it provides the speed of taking appropriate decisions on time, with the possibility of gaining experience from this experience for all components of the educational process Following the era of globalization and development in the use of Information and Communication Technology and the building of a sound learning. An environment capable of advancing the scientific and academic level of the Middle Technical University, higher education institutions, and other relevant institutions. By the results obtained found that the participation rate in the educational program exceeded 74.6% around the rate of watching and interacting with the scientific subjects reached 82.6% Program and channel for the last 60 days.

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