



Evaluation by google applications through technology acceptance model1

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ABSTRACT

This study includes two axes, the first is (theoretical background) divided into three parts, which are (evaluation, Google educational applications, and the Technology Acceptance Model (TAM)), and the second axe is (previous studies) It also includes previous studies for each of (calendar, applications (Google) education, and Technology Acceptance Model (TAM), as in Scheme No. (2).

Keywords: google, technology, acceptance.

INTRODUCTION

a calendar in the language: repair warp, word calendar derivative from the verb “ to evaluate ” (ibn mandur, 2003: 546) and he has rose mention it in the quran generous in several placements of which saying it almighty: men straighteners on women with what preferred allah some of them on some and with what spending from their money [surah women: verse 34], and he said almighty: say i am he calmed me down my lord to me a path straight religion values religion ibrahim upright gesticulate it was from polytheists [surat al-an'am: verse 161] and the almighty says, that several the months at allah two ten a month in book allah day create the heavens and the earth of which four excommunicated that debt value□ [surat repentance: verse 36], and the almighty says: indeed he created us human in best calendar. [surat repentance: verse 4] as well lost rose about omar the son of the speech satisfied allah about him it's a he said: “ who opinion of you warp let him straighten it," he replied arabi by saying: “ god if our opinion in you warp we've done it with our sword ” (al -bashir, said, 1995: 86), so he said person it's a people commodity what it is means so it's a price that item and make to her values information. if he said it's a people stick, it is means so it's a justice stick and correct it. Any make it straight. (Melhem, 2012, 36) either calendar scientifically: it is issuance rule around thing ingredient and this is what veins wiles when he described the calendar as: a process that issues judgments that are used as a basis for planning. Tenberink supports this by saying: evaluation is the process of obtaining the necessary information to reach judgments by which decisions can be made. most authors agree with what the previous definitions indicate about the necessity of extending evaluation to the issuance of judgments, as this process, if it is devoid of work or judgment, becomes a process of abstract description, and describing something differs from its evaluation, because description means reviewing the characteristics or features of something as seen by the descriptor (Al-zamili, al-sarmi, kazem, 2009, 44-45)

LITERATURE REVIEW

Evaluation Benefits

The benefits of calendar in the educational field are:

- Calendar is an important part of the educational process.
- Evaluation has become an important tool in measuring the learner's personality in all its aspects, in addition to its main role in measuring academic achievement, so its methods have multiplied.
- By evaluation, we discover the talents, tendencies, and distinguished skills of the learners.
- Evaluation helps to draw future plans by continually evaluating the curricula, and drawing the goals it achieves according to the recommendations produced by the process of implementing the curricula.
- It helps both the teacher and the student to know the extent of progress in school work towards achieving its goals and to identify the factors that lead to progress or prevent it, then to study what needs to be done for further improvement and development. (Farooq, 1994: 23)

Evaluation Types

There are several classifications of the calendar that differ according to the purposes in which it is used, or according to its comprehensiveness, methods of application, timing, and so on. (Al-Kharousi, et al., 2021, 147) and we show the most common classifications of calendars, as shown in Chart No. (3).

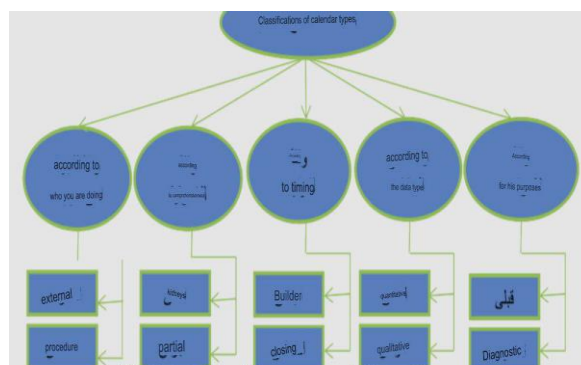


Chart No. (3) Classifications of calendar types (prepared by the researcher)

Classification of the calendar according to its purposes

Pre-evaluation

In other words, ensuring the current situation of the students before starting the teaching process, as planning is done according to the results of this evaluation, i.e. the experiences that the students possess and commensurate with their needs. This type of evaluation is also used when it is intended to divide the students into levels in homogeneous groups, according to their preparations and abilities.

Diagnostic evaluation

This type of assessment is concerned with identifying the strengths and weaknesses or previous experiences of the learners through their answers to certain diagnostic tests, the results of which are interpreted in the light of their reaching a certain level called (proficiency level). This type is useful to the teacher in planning learning methods with each group or group, a specific student according to his level or ability, which is previously diagnosed. (Saleh, 2021, 150)

Classification of the calendar according to the type of data:

This type of evaluation is concerned with the quantitative (numerical) results of the measurement tools used in the evaluation, such as tests, questionnaires, and assessment lists. This type also uses statistical methods in analyzing the resulting information that results in issuing judgments on the educational program or the evaluated starch. (Al-Turkiyah, 2022, 495) This type of evaluation is the type used in our current research.

Qualitative evaluation

The qualitative evaluation depends on observations, opinions, personal impressions, experience and knowledge related to the program or activity subject to the evaluation, which may be useful in completing the picture of the program or the phenomenon under the evaluation, and reaching important conclusions about it and determining its value. This type rarely depends on the quantitative aspects, complex statistical processes and methods. (Al-Ramahi, 2022, 1616)

Classification of the calendar according to time:

Formative evaluation

This type of evaluation aims to build or develop, as it takes place and continues with the continuation of the work of the educational program or the educational process and is implemented periodically, after the period of the program is divided into operations, evaluation and feedback.

Summative evaluation

It is the evaluation that is used at the end of implementing a specific program, where the evaluator collects data and information related to the workflow of the program from the beginning of its implementation until a certain period, and that data is analyzed and compared with specific standards, and then issues judgments aimed at ascertaining the extent to which the objectives of that program are achieved in order to make decisions about its continuation, suspension or modification. (Al-Najdi, 2012, 18)

Classification of the calendar according to its comprehensiveness:

Macro evaluation

The enlarged evaluation is based on the outputs of the system, i.e. evaluating the situation according to its perspective or general framework, and not according to its current condition. More clearly, it is the process of evaluating partial educational effectiveness according to its relationship to the general situation.

Micro evaluation

This type of evaluation is concerned with a specific aspect of the educational process, such as the teacher's evaluation of the achievement of his students, or the evaluation of the teacher's efficiency in teaching, or the evaluation of a specific teaching method, or the evaluation of the type of exam questions he sets for his students, or the evaluation of the school library, and so on, all of which are examples of this type of evaluation. Calendar. (Suleiman, Abu Allam, 2009, 99)

Classification of evaluation according to the entity that performs it

External evaluation

It is the evaluation that is carried out by independent evaluation agencies, agencies, or institutions that have nothing to do with the institution or program that is required to be evaluated in most cases. This independence may help provide impartiality and objectivity in the evaluation process.

Self or internal evaluation: Self Evaluation

It means that the institution or school takes a self-initiative to conduct the process of internal evaluation of its activities in various fields, whether related to the teacher, the learner, or management, with the aim of issuing objective judgments about the performance of that institution. (Al-Zamili, et al., 2009, 63-64)

Steps in the evaluation procedure

This process depends on steps and stages that we adhere to when conducting the evaluation. The opinions of educators varied in mentioning the steps, but they agreed on the content, and it can be summarized as in Scheme No. (4). (Eyal and Khaled, 2014: 34-35)



Chart No. (4) calendar steps (prepared by the researcher)

The following is an explanation of each step of the calendar:

- Determining the goal of the evaluation: It is the first step in the evaluation process, and it is characterized by clarity, balance, comprehensiveness, and accuracy, in order to know exactly what is intended to be evaluated. (Melhem, 2002: 45)
- Preparation and planning: The person in charge of planning determines the type of tool that will be applied to the evaluation sample before the information collection process.
- Information collection: applying the tool to the sample for the purpose of obtaining the necessary data for evaluation.
- Data analysis: Perform a statistical analysis of the data collected in the previous step. (Maroun, 2010: 29)
- Extracting and interpreting the results: converting the numbers obtained when analyzing the data statistically into results by interpreting them, taking into account the circumstances surrounding the study, and generalizing about similar cases. (Al-Jadri, Yaqoub, 2009: 214)
- Raising recommendations: Submitting the results of the above steps to the decision-making authorities. Recommendations shall be submitted to the authorities concerned with decision-making, provided that these recommendations are of an accurate educational and scientific nature. (Eyal, Khaled, 2014, 35)
- Issuing decisions: Issuing decisions and judgments from specialized authorities in the light of the recommendations produced by the evaluation steps. (Melhem, 2002: 55)

Google Educational Apps

Define The Word Google

American public institution Advertising (all fields) and associated services Search online and send messages e-mail By e-mail Gmaile. And choose the Google name that reflects the task you are doing Foundation, which is the organization of so many the information available on the web, word Google It is a mathematical term meaning 1 followed by one hundred (100) zeros. This term was coined by Milton Sirota (Sirota), the nephew of the American mathematician Edward Kazner, and this term was popularized in the book Mathematics and Imagination and the imagination) Developed by Kazner Kaster (Kazner Custer) and James Newman Newma).

(Purnama, Pramudiani, 2021, p 2445) and that the headquarters of the Foundation Google Located in Mountain View, California, it is the international headquarters of the Google Corporation Noting that there are sales and engineering offices for the organization all over the world. (Al Anshori, Syam, 2018, 7 (The Google Foundation was founded in 1998 in California by Sergey Brin and Larry Page) Brin & Larry Page) domain name has been registered Google. Com on September 15, 1997. (Ghanim, 2016, p. 26). The institution focuses its attention on the user and considers its capital to be the human being, and declares this in its principles, in terms of providing the best service and experience provided to him (Khaled, 2017) quoting (Awad Allah, Zaidan, Nahal, 2020, pp. 53-54). The goal of the Google Foundation was to arrange the huge amount of information displayed on the Internet and display it to users after it was arranged and organized, to make it easier for them to find, use and access the information with ease and ease, to officially announce the Google Foundation and its official website with a vision and a slogan between its goal and its work. (Al-Zayoun, 2015) quoted by (Al-Najjar, 2019, p. 12) (Google) is one of the organizations that have a distinguished role in providing software as free services on the Internet, as it provides its services to billions of users around the world through Google applications. Apps, which is based on the concept of cloud computing, as it has a huge infrastructure of computers (the cloud) connected to by users from all over the world. (Nasr & Ouf, 2011, p: 137)

Google Educational Apps

It is a set of productivity applications, provided by Google (Google) for free, to all educational institutions and includes several applications, including: (Google Virtual Classroom Classroom, Google cloud storage Drive, Google forms for surveys and quizzes Forms, the Google meeting room Meet, Google Docs, Google Slides Slide, Google Sheets sheets), and other applications. All these applications can be accessed through the Internet directly, and they can also be stored via the Google cloud storage service Drive. (Wilson, 2016) quoting (Ghanem, 2016, p. 27) These applications are classified as a free package hosted on the Internet to achieve more effective communication and cooperation between academic institutions. As well as enabling all individuals in universities to use its tools, educational applications (Goole) are considered the main step to enhance the principle of teamwork between students, faculty and staff, as it is easy to send e-mail (Gmail) to and from students, and the use of Google documents Docs in order to discuss lectures and other procedures that promote cooperation. (Sari, Kusuma, & Angraini, 2019: P 99) Yusef Al-Amour described it as a free package of technical resources for schools that provides cloud-based communications and protection tools, and a system can be prepared for educational authorities through these applications and the use of communication features and tools and benefit from media services multi. (Al-Amor, 2016, 147)

Features of Google Educational Applications

Google) educational tools are characterized by the fact that they achieve the first goal of education, which is participation, as the (Google) website provides applications that give the ability to edit and collaborate in real time in addition to the tools for effective sharing control and easy compatibility, and thus students can collaborate and share in collecting Information on the same topic, and among the most important features of Google educational applications are:

Collaboration and sharing

Google 's educational apps are highly collaborative and participatory, with each app offering real-time editing and collaboration, powerful sharing controls, and easy compatibility.

- Speed and time saving:Google educational applications provide facilitation of some tasks such as writing essays and scheduling electronic class dates, and a group of students can work together using an application, where everyone in the group can make changes in real time instead of waiting to receive copies via e-mail, Which helps save valuable time that could be spent on teaching or teaching.
- Free and easy to use:(Google) educational applications are free, with an easy and attractive user interface, and all of these are cloud applications, meaning that they require only a small amount of space on the disk, in addition to the ability to access all applications with one Google (Google) account and from any device connected to the Internet.
- Preserving the environment:Google educational applications help reduce dependence on papers and reduce carbon emissions. It supports energy-saving data centers. (Al-Afifi, 2018: 10-11)
- Strong educational administration:Google Apps for Education can be used in educational institutions well, because they update software versions automatically.
- Single learning environment for the student at home or educational institution:
- It enables students and educators to publish any document as a web page, giving them the ability to make global connections.
- Safe apps:The files cannot be accessed by anyone who does not have a login, and the privacy of data and information is provided, and it makes it a high level of security. It also provides a new feature to track the development of students, as it records every revision of the document, so the teacher becomes able to see

all the revisions and their number, and when students work on a document as a joint group task, Google educational applications automatically record the person who did the work and what work was done with it. It does not require the need to learn programming languages or use design software. (Keeler & Miller, 2016, p. 24-25)

Features of Google educational applications:

There are many features related to Google educational applications, we put in your hands the most important of them:

- User-centric: Once a user connects to a Google educational app, what is stored there in terms of documents, messages, pictures, applications, or whatever becomes of the user. And it is not only for the user, but he can also share it with others.
- Mission-centric: Instead of focusing on an application and what it can do, the focus is on what the user needs to do, and how the application can do it for them.
- Powerful: It connects hundreds or thousands of computers together in the cloud.
- Accessibility: Data is stored in the cloud, and users can instantly retrieve more information from multiple repositories, not being limited to a single source of data, as was the case with computers.
- Smart: With all the data stored on the various computers linked to one of Google 's educational applications, the data can be extracted and analyzed to access this information in an intelligent way.
- Programmed: Many of the necessary tasks with Google Apps for Education must be automated. For example, to protect data integrity, storing information on one computer in the cloud must be replicated on other computers linked to a Google application. If this one computer has moved outside the network, the cloud automatically reprograms with that computer to another new computer in the cloud. (Miller, 2008: p14-15)

The most prominent Google educational applications

Google applications for education are free applications provided by Google to facilitate the education process in academic institutions (schools, universities, and other educational institutions), by providing means to reduce effort and time through sharing and collaboration, and the use of cloud storage service, And other services that can be controlled by the director of the educational institution, and with the multiplicity and diversity of these applications depending on the purpose intended for them, as their number reaches more than 100 applications that can be employed to serve the educational process (Mubarak, 2019, 50), we mention the most prominent and most common and used of these applications in the educational process as follows:

Google Classroom

For the purpose of accessing this application, you must activate the (Google) account, and then insert the following link: <https://classroom.google.com/>, or by choosing the default classroom application icon (Google Classroom) as in Figure No. (1), where you can access To the icon by pressing () in the account activation (Google).



Figure (1) the default classroom application icon (Google Classroom)

(Sukmawati, & Nensia, 2019) defined it as an electronic educational system that is provided to schools in order to facilitate and simplify educational tasks and provide lessons, and it also provides a system for electronic tests in an interactive manner. (Sukmawati, & Nensia, 2019: p 143)

(Iftakhar, 2016) defined it as one of the free applications provided by Google, and it is considered an ideal tool because of its powerful features to improve education, save time for teachers and students, and improve effective communication outside the traditional classroom between teachers and students. ((Iftakhar, 2016: 12).

It can be defined as an educational platform that provides an interactive environment that can be said to be a comprehensive interactive electronic environment that employs Internet technologies and combines electronic content management systems, as well as social networks. This platform enables teachers to publish their lessons, set assignments, implement educational activities, and divide students into groups. To exchange opinions and

ideas and share educational content, which contributes to achieving high-quality outputs that keep pace with development and progress. (Al-Ibrahim and Al-Omari, 2020, p. 187)

In 2013, the Classroom platform was launched through Google (Google) and used modern technology in education, through web applications and software as well as virtual classes, and at that time the platform was limited, until the number of teachers registered in it increased around the world, to become one of the most important platforms Education at the present time, and it is among the services of Google (Google) and designed by the institution to help teachers and facilitate their work in a paperless way in terms of creating and distributing tasks to students, and facilitating interaction between teachers and their students or between students themselves in a virtual environment and providing opportunities for discussion through computers or mobile phones. (Alim, Nur & et al, 2019: p 242)

Google Drive

For the purpose of accessing this application, you must activate the (Google) account, and then insert the following link: <https://www.google.com/intl/ar/drive/>, or by choosing the cloud storage application icon (Google). Drive) as in Figure (2), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (2) the cloud storage application icon (Google Drive)

Google Corporation. Store and share individual files or entire folders with specific people or the whole class Create and reply to comments Open many types of files directly in the browser, including PDFs and Microsoft files Office, high-resolution videos, and many types of image files, even if the appropriate program is not installed on the computer, and modifications to files and access to any latest version can be made from anywhere. It is free, but with a limited capacity not exceeding 15 gigabyte", which is a safe place to save a backup copy of files and access them from any device. (Al-Sharif, 2020, 13)

Google Forms

For the purpose of accessing this application, you must activate the (Google) account, and then insert the following link: <https://www.google.com/intl/ar/forms/about/>, or by choosing the default questionnaires and tests application icon (Google) Forms) as in Figure (3), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (3) The application icon for questionnaires and tests (Google Forms)

An application from Google (Google) free educational applications, which enables the user to create a questionnaire form for an employment request, opinion poll, collection of specific information, or tests for students, in an easy and fast way, with the ability to add an image or logo. Where responses or responses are collected in one place and immediately, with the ability to analyze the results obtained. (Abdel Moneim, p. 2020: 95)It is also an application used in making questionnaires and tests because it contains multiple forms of questions, and through this application it is possible to perform the following functions:

- The ability to send the questionnaire or questionnaire form via e-mail or share it on social networks.
- Obtaining a graphic summary of the questionnaire result, as well as following up the questionnaire result with an Excel worksheet, with the ability to apply Excel procedures such as filtering, calculations, etc. without the need for the program to be on the computer.
- Theme application to give an aesthetic look to the questionnaire. (Abd al-Aal, 2018: 281)

Google Meet

For the purpose of accessing this application, you must activate the (Google) account, and then insert the following link: <https://meet.google.com/>, or by choosing the electronic meeting room application icon (Google Meet) as in Figure (4), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (4) The icon of the electronic meeting room application (Google Meet)

It is a program designed mainly for different institutions from Google is free to conduct meetings and video calls at the enterprise level and is designed mainly for professional use, and the number of people who can join the call is from 50 to 100, and the Meet application puts its tools in a bright white bar, enabling you to turn off the camera, mute the sound, or share the screen. There are many advantages of the electronic meeting room application (Google Meet), including:

- The app is well designed and sleeker, and the text labels on the main controls are larger and easier to read.
- The free time limit for Google Meet is 60 minutes, which is an advantage compared to the Zoom app, which only gives 40 minutes for sharing meetings.
- It is considered one of the safe applications through the continuous work of the developers to bridge the security gaps, by encrypting the recordings and videos and preventing unknown users from entering the calls.
- It is possible to control calls and comment on the screen, especially when holding meetings and classes, and sharing the screen between people by selecting it entirely or a specific window from it, and pressing the stop button in the middle of the application window when you want to end the screen sharing.
- The absence of accessories or desktop applications in the dead application.
- The dead program is easy to use, and has a simple user interface, starting with how to open a video call, instead of appearing in a new window as Zoom does.. (Al-Jabroni, 2020, p. 350)

Google Docs

For the purpose of accessing the Docs application (Google Docs) You must activate the (Google) account, and then insert the following link: <https://docs.google.com/document/u/0/>, or by choosing the (Google) Documents application icon (Docs) as in Figure (5), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (4) the Google Docs application icon

It is an application that stores everything that is sent or received in the cloud, so that it can be accessed from anywhere, at any time for free from any computer at home, at school, or in the public library, and it also allows a storage capacity of about three gigabytes.. (Adams, 2008, 98-99) It is a free service that enables the user to write or modify documents digitally, which gives documents a living spirit that facilitates the formation of paragraphs and texts and enriches them with images, tables and links. This service also allows writing reports and documents, creating and processing text files, printing them, modifying them and sharing them with others via the Internet. (Abdel Moneim, 2020: 95) There are many features of the Google Docs app (Docs), including:

- Format documents by defining and editing margins, colors, fonts, and line spacing.
- Collaborate online in real time and chat with friends.
- As well as inviting others to cooperate with you by allowing them to modify or comment only.
- As well as restoring any previous version of the document by viewing its revisions archive.
- It also provides the advantage of translating the document into other languages.

- Provides voice typing feature.
- Email the document to others as an attachment. (Al-Ghaimel, 2017) quoted by (Al-Najjar, 2019, p. 18)

Google Slide

For the purpose of accessing the Presentations application (Google Slide) You must activate the (Google) account, and then insert the following link: <https://docs.google.com/document/u/0/> , or by choosing the Presentations application icon (Google) Slide as in Figure (6), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (6) Presentation application icon (Google Slide)

It is an online application that allows creating, storing, analyzing and organizing presentation slides, much like the Power presentation application Point) provided by Microsoft, and this application allows the possibility of collaboration and instant sharing with colleagues in creating and modifying the presentation. (Wise, 2015: 22) Implementation offers introductory from The Google from construction slices using the tool Modification slides that Available In which Features like inclusion clips the video and fees animated and choose method moving in between slides. as you may Spread your offers introductory on me web so that can For everyone examining on him, or Share it on me Domain Special, and the presentations application (Google Slide) is distinguished by the following:

- Edit your presentation in collaboration with friends or colleagues, and share it with others.
- Import PPTX, PPS files and convert them into presentations (Google Slide).
- Download presentations (Google Slide) to your computer in PDF or PPT format TXT.. (Purnama, & Pramudiani, 2021, P 2441)

Google sheets

For the purpose of accessing the spreadsheet application (Google sheets) You must activate the (Google) account, and then insert the following link: <https://docs.google.com/spreadsheets/u/0/>, or by choosing the spreadsheet application icon (Google) sheets as in Figure (7), where the icon can be accessed by pressing () on the main (Google) interface after activating the (Google) account.



Figure (7) the spreadsheet application icon (Google Sheets)

This application is similar to the Microsoft Excel program, and allows creating, sharing and storing spreadsheets via the Internet, analyzing data and tracking results. It can also invite others to participate and collaborate in spreadsheets. It also enables data to be imported from EXCEL, TXT and converted into Google data (Google), it also enables the creation of graphs based on existing data. Google Sheets application features the following:

- Import data from Excel, TXT, CSV and convert them to Google Sheets.
- Export data in Excel, TXT, and CSV formats, as well as PDF and TXT files HTML and others.
- Using functions to perform calculations based on user data.
- Create graphs based on user data. (McAliney, Ang, 2019, p. 166)

Technology Acceptance Model

(TAM): Technology Acceptance Model Concept

It is a model designed in (1989 AD) by (Davis) to interpret technology acceptance and monitor users' perceptions of any new technology through factors defined by two main variables: expected benefit and expected ease of use; These two variables are affected by several external factors, and the Technology Acceptance Model (TAM) was derived by relying on the Theory of Reasoned Action (TRA). Action, as well as the theory of planned behavior (TPB) Theory of Planned Behavior, which is based on the fact that the user's

behavior is rational, and that he collects available information and evaluates it systematically, in addition to thinking about the effects of possible actions. (Al-Mutlaq, 2022: 87) Presumably Model Acceptance technology (TAM) on that Accept any technology specific existing On Two workers Two heads are: Benefit projected which mean with it Class that Believes the person that use it system specific He will help him on me improve its performance career, and ease the use projected which mean with it Class that In which the person that use it system specific will be for less an effort Maybe. (Bakker, 2022, 26) Davis explained user motivation for information systems in his first model by focusing on three factors: expected utility, expected ease of use, and behavioral inclination. Considering that behavioral inclination is the main determinant of real use or not, Figure No. (8) Shows the modified version of the Technology Acceptance Model (TAM). (Al-Taweel, 2011: 59-60) It is the Technology Acceptance Model (TAM) that determines the actual use of this technology, since the expected benefit and ease of use lead to the formation of the behavioral intention to use and thus the real use of technology, and the behavioral intention is the degree to which the individual has Form a conscious plan for the use or non-use of the intended technology. (Radif, & et al, 2016, p 7126)

(TAM): Stages of Development Of The Technology Acceptance Model

The technology acceptance model went through many stages until it reached its final form, where (Davis) in (1986) built the technology acceptance model based on the "theory of rational action" developed by (Fashbein & Ajzen) in (1980) and another theory that developed from it is called "Theory of planned behavior", and the two theories are based on a basic assumption that states that the consumer's behavior is rational, and that he systematically collects all available information and thinks about the effects of his possible actions, where (Davis) suggested that the user's motivation for the information system can be explained by three factors: Perceived benefit perceived ease of use and attitude towards the use of the system. It is assumed that the user's attitude is a major determinant of actual use or non-use. The user's attitude, in turn, is affected by two main beliefs: the perceived benefit and the perceived ease of use, because the first affects the second directly, and both are affected by external variables. Diagram No. (5) shows the original form of the Technology Acceptance Model (TAM) diagram. (Al-Taweel, 2011: 58)

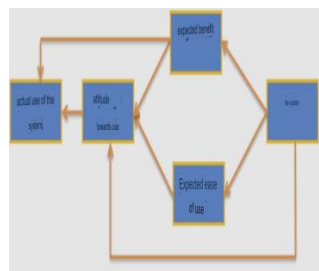


Diagram No. (5) The original 1989 Technology Acceptance Model (TAM) diagram (Al-Taweel, 2011)

In (1993) Davis modified the model and suggested that the perceived benefit may have a direct impact on the actual use of the system, and he found that the characteristics of the system can directly affect the user's attitude without the need to form an actual belief about the system, and this speech illustrates the scheme No. (6). (Al-Ansari, and Al-Zahrani, 2021: 585-586)

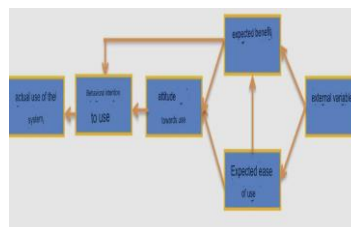


Chart No. (6) The revised scheme of the Technology Acceptance Model (TAM) for the year 1993 (Al-Ansari and Al-Zahrani, 2021)

The model was later developed to include the behavioral intention to use as a new variable that is directly affected by the taut benefit and mediates the attitude towards use and actual use, as in Scheme No. (7) the second modified scheme of the Technology Acceptance Model (TAM) (Al-Taweel, 2011: 59)

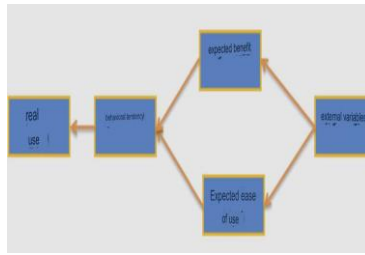


Chart No. (7) The second revised scheme of the Technology Acceptance Model (TAM) (Al-Taweel, 2011)

In the year 2000(Davis & Venkatesh)tested the second modified version on 200 users to determine their acceptance of information systems, and the results indicated that there is a strong correlation between behavioral intent and actual use, where the expected benefit has the greatest impact on behavioral intent, and the effect of expected ease of use is less, but it Substantial, that is, the direct effect on the behavioral intention is due to the expected benefit and expected ease of use by excluding the variable attitude towards use from the previous model to produce the last modified model as in Scheme No. (8) the last modified scheme of the Technology Acceptance Model(TAM).(Bakir, 2022: 28)



Chart No. (8) The latest modified scheme of the Technology Acceptance Model (TAM(Bakir, 2022)

Components of the Technology Acceptance Model (TAM)

The Technology Acceptance Form (TAM) consists of the following:

External variables:

- These are personal and demographic data, and these external variables affect the expected utility and usability factors. (Al-Ansari, Al-Zahrani, 2021, 587)
- Expected benefit:
- Expected benefit is defined as the degree to which a person believes that using a particular system will improve their functionality. (Davis, 1989, p 32) Or is the person's expectations that his use of the computer will improve the performance of his tasks, as Davis asserts that people tend to use a particular system when they believe that this system will enable them to perform their jobs better. (Davis et al, 1992: p 1116)

Expected ease of use:It is the degree to which a person believes that his use of a particular system will be with the least possible effort, and there is an indirect and highly important effect on the expected ease of use on the behavioral intention of the potential user of the system. (Al-Alawi et al., 2014, 4)

Behavioral intention:It means the planned behavior of the individual to use the technology, and this planned and expected behavior comes through the expected benefit and the expected ease of use.

Real use: It means the individual's actual use of the technology and repeatedly, which means the user's positive attitude towards the technology, which means the success of the technology, and it is predicted by behavioral intention. (Al-Mutlaq, 2022: 89)

Benefit from the Technology Acceptance Modle (TAM) in Education

The benefit of the Technology Acceptance Model (TAM) lies in recognizing the extent of learners' behavior towards technology and its applications that are used in the educational process to raise the effectiveness of the technological management used, improve the planning process, and save effort and money. That is, when introducing the e-learning management system in educational institutions, it is necessary to identify the extent to which students accept technology and determine the factors that affect it in order to exploit the advanced capabilities of the technical system in education and achieve positive feedback, by looking at the factors that contribute to the adoption and use of the e-learning management system by learners as they are The main factor, given that their motivation and acceptance of technology is the most important factor in the success of e-learning. This Technology Acceptance Model (TAM) is considered one of the most well-documented and most accepted models for interpreting the extent of acceptance and use of information systems. It has been extensively tested on many samples of different conditions and sizes to interpret user behavior towards information systems, in addition to predicting the actual use and intention of using it. (Al-Mutlaq, 2022: 88) The

Technology Acceptance Model (TAM) is characterized by its ability to find a measure to identify the extent to which beneficiaries accept learning management systems and electronic programs that are used in the educational process to save time, effort and money in optimal planning to raise the level of technology effectiveness. It is considered very important to identify the extent of acceptance or acceptance of technology in educational institutions due to the institutions' tendency to develop learning management systems, which cost them huge sums of money without identifying the level of students' acceptance of them and identifying the factors that affect acceptance, which may result in wasting and not investing the advanced capabilities of the system. (Al-Ansari, Al-Zahrani, 2021, 585)

Criticisms of the Technology Acceptance Model (TAM)

- does not save Model (TAM) Adequate understanding of the technology designers of the needs of the beneficiaries of the technology, in order to create a suitable environment for the acceptance of the technology, where it's a whenever Understanding designers needs beneficiaries from Technology whenever It was completed the design on me according This is amazing needs that effect in accept and use Technology. (Al-Tayeb, 2013. p. 74).
- ease the use And interest sensible is not factors the only one that explain Acceptance beneficiary to use Technology She is factors are considered predictive And it's not mandatory where that ease the use effect with a picture not directly on me Utilization technical.
- Neglecting form for factors external that play role important to accept and use technical.
- Turn a blind eye form looks about social impact Which Play An important role in Acceptance and use Technology.
- neglect form Worker Experience Which It is considered from most important factors influential with a picture not directly in Acceptance Technology, where It was supposed to divide beneficiaries in organizations to me sectors from where Experience, departments (senior - executive - leadership - trainees) So eat level from This is amazing levels for him Methods absorb specific in accept it and use it for tech.(Tahamid, 2018: 135).

The second axis

Previous Studies

distance looking at Researcher on me literature and studies and magazines the operation I came up with to me Results scheduled that dealt variables Research - Calendar, Google Apps for Education, Technology Acceptance Model (TAM) - in a form direct locally Arab and foreign.

2.2.1. Previous studies that dealt with the topic of evaluation:

Table (1) The most important previous studies related to the calendar

1- The title of the study Evaluation of electronic educational platforms in Iraqi universities according to quality standards in e-learning	
Findings	<ul style="list-style-type: none"> 1- Quality standards are generally achieved in electronic educational platforms, and there are no statistically significant differences between the two disciplines (scientific and human), and between years of experience (less than ten years and more than ten years), and that the interaction between the two variables according to the bilateral interactions of the research tool does not amount to The level of significance. 2- Indicators of the quality standards of electronic educational platforms are achieved in general, as it turns out that all indicators of the e-learning tool standard have been achieved to a large extent, except for one indicator. 3- The indicators of the quality standards of electronic educational platforms are achieved for the humanitarian specialization, with the same results as the indicators in general and for the scientific specialization. 4- Achieving indicators of the quality standards of e-learning platforms for years of experience (less than ten years).
2- The title of the study calendar Experiment Tests the book open from destination consideration Masters and university students Qadisiyah according to their orientations Toward education electronic	
Findings	<ul style="list-style-type: none"> 1- Al-Qadisiyah University students have a positive attitude towards e-learning. 2- There are no differences between males and females among university students. 3- There were no differences between the scientific and human specialization among university students, and there was no difference between the interaction (type and specialization). 4- University professors have positive attitudes towards e-learning.
3- The title of the study calendar The reality of e-learning during the Corona pandemic in the Capital Governorate, Amman, from the teachers' point of view	
Findings	<ul style="list-style-type: none"> 1- Evaluation of the reality of e-learning during the Morona pandemic in the Capital Governorate,

	Amman, from the teachers' point of view, was moderate. 2- There are no statistically significant differences due to the variable of gender or experience.
	4- The title of the study Evaluation of the experience of using e-learning tools in the secondary stage during the period of social distancing from the point of view of teachers in Riyadh
Findings	1- The degree of teacher use of e-learning tools is medium. 2- There are many difficulties in applying e-learning.
	5- The title of the study Evaluation of e-learning for medical education in low- and middle-income countries: A systematic review
Findings	This research concluded that valid and reliable evaluations are the basis for guiding and Improving e-learning interventions, increasing their sustainability, alleviating shortages in health care workers and improving the quality of medical care in low- and middle-income countries.
	6- The title of the study Evaluation of Gamification in E-Learning Systems for Elementary School Students
Findings	The results indicate that gamification positively enhances learning outcomes and motivates students to learn.

Indicators about previous studies that dealt with the topic of evaluation

Most of the previous studies that dealt with the implementation of e-learning and the evaluation of all types of technology used in education have dealt with evaluation from a variety of different angles, with some aspects that are similar to what is included in this research as well as some aspects of difference, which can be clarified in the paragraphs listed below:

- Subject of the study: The study (Rahim, 2022) dealt with the evaluation of electronic platforms, and the study (Al-Ramahi, 2022) dealt with the evaluation of the open book experience that is used with e-learning, and the study (Al-Turakiyah, 2022) dealt with the evaluation of the reality of electronic education, and the study dealt with (Al-Uqab, 2021) Evaluation of the use of e-learning tools, and the study (Bartem & et al., 2020) dealt with the evaluation of e-learning, and the study (Alshammari, 2020) dealt with the evaluation of the use of electronic games in education.
- Study population and sample: Most of the previous studies above dealt with students (in universities, secondary and primary schools), teachers, and teachers.
- Research tool: The questionnaire was the tool used in most of the previous studies above, as in the current study, except for the study (Alshammari, 2020), in which the achievement test was its tool.
- Research Methodology: Most of the previous studies above relied on the descriptive and descriptive-analytical approach, as in our current study, except for the study (Alshammari, 2020), which relied on the experimental approach in the research.

Previous studies that dealt with the subject of Google educational applications

Table (2) the most important previous studies related to Google educational applications

	1- The title of the study: The impact of using Google applications in e-learning in light of the Corona crisis (an applied study)
Findings	There are statistically significant differences between the mean scores of the experimental group before and after applying the program in favor of the efficiency of distance use (e-learning). The research also found that there are statistically significant differences between the mean scores of the experimental group and the control group in favor of the experimental group. E-learning and the development of positive attitudes among university students.
	2- The title of the study The competencies of biology teachers with Google educational applications and their relationship to their attitudes towards e-learning
Findings	There is a direct positive correlation between the two variables, and there is a clear contribution to the trend in the competencies of Google educational applications
	3- The title of the study The effect of using some Google educational applications in teaching a technology course education in Academic achievement and social intelligence among Taibah University female students
Findings	The researcher reached results that call for the reinforcement of such an experiment with other experiments, as she concluded that there is a positive effect that may reflected on The academic achievement and social intelligence of the students, and in the light of the findings, the researcher recommended the use of participatory learning by integrating Google educational applications into the educational learning process.
	4- The title of the study The effectiveness of a proposed program based on employing Google tools on developing the acquisition of technological concepts among female students of the Faculty of Education at Al-Azhar University and enhancing their attitudes towards technology.
Findings	1- There are statistically significant differences between the mean scores of the experimental group

	and the mean scores of the control group students in the post application of the academic achievement test, due to the teaching method. 2- There are statistically significant differences between the average scores of the experimental group and the average scores of the students of the control group in the post application of the Attitudes Scale in the axis of students' attitudes towards the use of Google tools, the axis of students' participation, the axis of equality, and the axis of classroom interaction, due to the teaching method.
5- The title of the study The Collaborative Benefits of Google Apps Education Edition in Higher Education	
Findings	The study revealed positive opinions among teachers and groups of students about the use of Google educational applications, and that the use of these applications is beneficial when they are used in a planned manner, and that instructions for use are attached to these applications. The study also concluded that the use of these applications contributes to helping students build their future The study recommended that a survey be conducted for graduate students who used educational applications in their studies and compare them with their peers who did not use them, and write down the advantages and disadvantages of using such applications in higher university education.

Indicators about previous studies that touched on Google educational applications

- Most of the previous studies that dealt with educational (Google) applications from various and different angles, with some aspects that were similar to what was included in this research as well as some aspects of difference, can be clarified in the paragraphs listed below:
- Study Subject: The study (Al-Qara Goli, 2021) dealt with the impact of using educational (Google) applications in e-learning, and the study (Mahdi, 2022) dealt with the competencies of biology teachers with (Google) educational applications, and the study (Al-Rahili, 2013) dealt with Google applications (Google) education in teaching, and the study (Al-Afifi, 2018) dealt with the effectiveness of employing the tools of educational (Google) applications in acquiring technological concepts among students and enhancing their attitudes towards technology, and the study (CAHILL, 2011) dealt with the advantages and disadvantages of teaching using Google (Google) educational applications.
- Study population and sample: Most of the previous studies dealt with students (in universities, secondary and primary schools), teachers, and teachers, as in the current study.
- Research tool: The researcher used the questionnaire as a tool for her current study, as in the study of (Mahdi, 2022) and the study of (Al-Afifi, 2018), while the tools for the other previous studies above varied as follows: The study (Al-Qara Ghuli, 2021) used the observation card, and the study used (Al-Rahili, 2013). Achievement tests, websites, social intelligence scale, and the study (Al-Afifi, 2018) used an achievement test, a questionnaire, a website, and the study (CAHILL, 2011) used the interview.
- Research Methodology: The scientific research methodology used in the previous studies mentioned above, which dealt with the subject of Google educational applications, was as follows: the semi-experimental approach to the study of (Al-Qara Ghuli, 2021), the descriptive approach to the study of (Mahdi, 2022) and the study of (CAHILL, 2011), and the experimental method for the study of (Al-Rehaili, 2013) and the study of (Al-Afifi, 2018).

Previous studies that dealt with the Technology Acceptance Model (TAM)

Table (3) The most important previous studies related to the Technology Acceptance Model (TAM)

1- The title of the study The possibility of adopting hybrid cloud computing in Iraqi universities - an analytical study using the Technology Acceptance Model (TAM).	
Findings	Iraqi private universities pay more attention to the expected benefits of hybrid cloud computing in building a positive attitude towards that computing (because it depends on the resources of the supplier mainly), while Iraqi public universities believe that the expected ease of using that computing is the basis for building that positive attitude towards it. (Because it relies on adapting its resources to build primarily distinct computing).The originality of this research also lies in providing a roadmap for how to study the factors influencing the use of hybrid cloud computing in Iraqi universities and thus providing a vision and perception for the management of those universities about what can be done in the future to develop the processes and systems of teaching and learning based on cloud computing.
2- The title of the study Integration of organizational culture into the technology acceptance model in the use of the e-learning system from the point of view of the faculty at Al al-Bayt University	
Findings	(1)There is no statistically significant effect of organizational culture in both the perceived benefit and the perceived ease of use of the e-learning system (2).There is no statistically significant effect of perceived ease of use on the perceived enefit of the e-learning system (3).There is a statistically significant effect of both the perceived benefit and the perceived ease of use on the behavioral

	structure of the use of e-learning carried out by faculty members at Al al-Bayt University.(4) There is no statistically significant effect of organizational culture on the behavioral intention to use e-learning by faculty members at Al al-Bayt University .
3- The title of the study Using technology acceptance system to measure the quality of electronic library services in Sudan: Sudan Open University as a model	
Findings	<ol style="list-style-type: none"> 1. The validity of the technology acceptance model as a means that can help clarify the behavioral intentions of the beneficiaries of students and faculty members towards dealing with the electronic library, with a rate of 73%. 2. The model variables related to (personal criteria and ease of access to the system) directly affect the behavioral intentions of the sample by 68%. 3. The perceived benefit and ease of use of the electronic library played an important role in the direction of the respondents towards benefiting from the services of the electronic library at a rate of 89.5%. 4. Ease of access to the information system and databases available in the electronic library had an effective impact in making knowledge variables available at a rate of 88.2%, which affected the scientific attitudes of the sample, but did not affect their behavioral intentions.
4- The title of the study Evaluation of Online Video Usage and Learning Satisfaction: An Extension of the Technology Acceptance Model	
Findings	In this research, the researcher concluded that the expected usefulness, attitude and self-efficacy of the Internet had a direct impact on the use of educational video. Satisfaction with learning was also directly affected by the interaction between the learner and the learner, ease of perception and learning performance. Moreover, the results indicated that the use of video had a significant impact on learning performance and learner satisfaction. The results show that the TAM model can be applied to predict university students' use of the Internet and to follow videos for learning.
5- The title of the study Towards Adaptive E-Learning among University Students: by Applying Technology Acceptance Model (TAM)	
Findings	Results indicate that perceived ease of use, perceived usefulness, and intention to use e-learning among university students have a positive effect and are significantly associated with learning performance and learning satisfaction.

Indicators about previous studies that dealt with the Technology Acceptance Model (TAM)

Most of the previous studies that used the Technology Acceptance Model (TAM) in various and different ways, with some aspects that were similar to what was included in this research as well as some aspects of difference, can be clarified in the paragraphs listed below:

- Study Subject: The study (Al-Kubaisi and Abdel-Mohsen, 2018) used the Technology Acceptance Model (TAM) to present a hypothetical model for cloud computing in Iraqi universities, and the study (Ababneh and Al-Zoubi, 2018) used the Technology Acceptance Model (TAM) to find out the behavioral intention of students to use e-learning and this It is very close to the topic of the current study, and the study (Tahamid, 2018) used the Technology Acceptance Model (TAM) to find out the quality of electronic library services in Sudan, and the study (Nagy, 2022) used the Technology Acceptance Model (TAM) to evaluate students' use of online educational videos and the subject of this The study is very similar to the current study, and the study (Alamri, & et al, 2019) used the Technology Acceptance Model (TAM) to evaluate students' satisfaction with the use of e-learning.
- Study population and sample: Most of the previous studies above dealt with students and faculty in universities, as in the current study, except for the study (Al-Kubaisi and Abdel-Mohsen, 2018), whose research and sample population was universities.
- Research tool: The researcher used the questionnaire as a tool for her current study, and this is identical to all previous studies above related to the Technology Acceptance Model (TAM) variable.
- Research Methodology: The scientific research methodology used in the previous studies mentioned above, which dealt with the Technology Acceptance Model (TAM) variable, was the descriptive and descriptive-analytical approach, which is the method adopted in the current study.

Aspects of benefiting from previous studies

- See the types of research methods used and be guided by that in determining the most appropriate for the current research.
- Benefit from some terms and their definitions and include them in this research.
- Learn how to organize and present data and interpret results.
- Learn about the mechanism of preparing a scale (criteria list) for research (research tool).
- Identify the methods of obtaining the necessary validity and reliability of any study tool.
- Identify the objectives of previous studies and how to achieve them.

- Identify the types of samples and the categories included in them.
- See a number of important references.
- Examine the method of organizing Arab and foreign sources and the sources of Internet sites.
- After identifying the statistical means of previous studies, it is possible to know the statistical means of the current research.

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