



Developing Digital Content based on Articulate Storyline and Google Classroom and their Effectiveness on Tenth Graders' English Language Writing Skills in Al-Karak Directorate

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ABSTRACT

The study aimed to develop digital content using Articulate Storyline and Google Classroom and their effectiveness in writing skills among tenth grade students in Karak directorate. A quasi-experimental research approach was utilized. The study sample consisted of (68) male students that was distributed into three groups; the first experimental group was taught using the Articulate Storyline software, the second experimental group was taught utilizing Google Classroom application, the control group was taught using the conventional teaching method. The study instrument included a 20-item multiple-choice writing skill test prepared using the Articulate Storyline software and the Google Classroom application by appropriating Module One "Starting Out" and Unit One "A New Business Idea". The study instrument' validity and reliability was also checked. The study indicated that there were statistically significant differences between the mean scores of the first experimental group which was taught using the Articulate Storyline software and the control group which was taught utilizing the conventional method in writing tests in favor of the experimental group that was taught using the Articulate Storyline software. The study also showed that there were statistically significant differences between the mean scores of the second experimental group that was taught using the Google Classroom application and the control group that was taught utilizing the conventional method in writing tests in favor of the experimental group that was taught using the Google Classroom software. Besides, the study demonstrated that there were statistically significant differences between the mean scores of the first experimental group that was taught using the Articulate Storyline software, and the second experimental group that was taught utilizing the Google Classroom software in writing test, in favor of the experimental group that was taught using the Articulate Storyline software. Given the said results, the current research study recommends tenth-grade English language

teachers to use Articulate Storyline software and Google Classroom application due to their clear impact on developing writing skills.

Introduction

Teaching English language is one of the most important necessities of the current era, that for contemporary the scientific development, the knowledge explosion and availability of technical equipment in the (Sharif ,2019).

English language is considered as basic and official for more than (85%) of international organizations, it is one of the most important languages used in political, commercial and tourism meetings in the world. since the English language is the language of technology and most of the scientific sources were written in the English language so people need to learn English language to keep up the science and use technology (Zeeshan , 2015).

Despite the importance of English language, it faces many problems and difficulties which are related to the teacher, the student, the curriculum, teaching methods, and goals. So these problems lead the students to the reluctance of the material and their lack of interest, also lead to the stagnation of the curriculum and its failure to keep up with the course of the current era and technological developments (Abu Al-Wafa 2011).

Many studies have confirmed that there are general weakness in all stages of students in the English language subject in Jordan, and this is due to the students' failure to make any effort in the process of acquiring the language and their reliance on memorization, they retrieve it in the exam, so the need to search for ways, methods and strategies of teaching It differs from the traditional method of teaching in light of the increasing educational and technological development in the world to prepare a new generation who is aware of others, and the development of their self-learning skills, so that they can keep pace Scientific and cultural progress the life (Al-Ayashr, 2011).

Since the tenth grade is considered the transitional stage from basic education to secondary education, these problems may affect students' choices of learning streams for the secondary stage, and with the growth of new knowledge day by day, and the recent increase in the information, student of tenth grade may feel a kind of boredom, frustration, and despair, that shows as signs of their behavior .Despite his aversion to education, they have negative attitudes towards it, with the result being one of two things: either dropping out or failing, its places, methods and techniques Therefore, as a solution to this matter, educational technology has set all its objectives to make learning more interesting, whenever the learner feels the excited of his abilities to try to develop the educational process, and fun, creativity and mentality whenever she passionately attaches herself to education and knowledge, and emotional bonds appear between him and knowledge as it stuncked in her brain (AL-harbi, 2017).

stated that the English language below first place in transfer Science, technology, media and the Internet in public and higher education institutions, and this is not limited to this Not only in foreign countries, but it has gone beyond the use of the English language in various fields, and to a large extent in Arab countries, until it has become the desired language as a means of communication and learning in all fields of learning.

In recent years, digital technology is utilized to be used in the learning and teaching processes in developed countries Digital technology is not just an educational method, but rather a

combination of several methods in one way Because it performs new functions that you cannot achieve in any other way as it provides an environment through two-way: interactive education. Digital Technology is considered as input or method in the field of teaching and learning in various subjects, and with the development of computers learning and teaching theories, digital technology has become a phenomenon for its implications, justifications and effects on the learning and teaching processes (Al-Dulaimi ,2019).

The use of technology has changed the teaching methods of English language (Altun, 2015) where the use of multimedia text in class helps the students to improve their English language and use technology also enhances students linguistic knowledge using printed text, videos and the internet which allow students to gather information and offers various materials for the language (Arifah ,2014).

In addition, technology has made education more active and exciting for students and increased their motivation towards learning, where lessons are presented in ways that are more exciting, interesting, and effective than traditional methods (Colin,2015).

With the advent of the fifth-generation network and the emergence of modern applications to enlighten education, support and enhance the educational situation, which are digital education programs that contain multimedia and real learning environments. such as Google Drive, Google Docs , Google Drawing ,Interactive E -book , Google presentation ,Google Classroom.

English language has four skills, these are: listening, speaking, reading and writing. These four skills are closely related in terms of the linguistic usage, as each one is integral with all the others. Indeed, students cannot use language effectively unless they master all these skills; for example, the writing skill depends on the reading skills, and both depend on mastering the skills of listening and speaking (Jing, 2006).

writing is viewed as the fourth ranked skill and the outcome related to learning those skills. Indeed, it is one of the most important and prominent linguistic skills that contributes to developing the human thought, where it requires more abilities as compared to the other linguistic skills. Writing is also viewed as the mirror through which the student's other linguistics skills are reflected, and the scale on which the student's intellectual and linguistic abilities are assessed. Moreover, it is the way through which your students express their thoughts, emotions, and feelings, in addition to being an instrument that students may use to express their latent abilities. writing can help students face the various functional situations and encounter the problems they may face during their life course and find the suitable solutions for that (Al-Mikhlaifi, 2019).

Articulate storyline which Important icons for the teacher's work, which enables him to provide interactive evaluation presentations, audio recordings, videos, and tests (Almohammad ,2018) and Articulate Storyline is one of the programs Featured software that helps the designer design integrated presentations that contain slides(Point Power), interactive tests, pictorial presentations, and others that are interactive and control How to display the program, so that it provides many images for publishing and publishing the presentation Such as an Internet page, or publishing a Microsoft Word program and dealing with it as we do With mixed word processing programs and printing it on paper, this gives strength to the program

Google classroom is a free application provided by google to all users which helps many students, teachers and users to communicate with each other without associated with specific time or place. this application is used to improve the education process (ALiamat 2016).

This study comes to develop an interactive digital content based on articulate storyline and google classroom and to investigate their effectiveness in developing the writing and reading skills of tenth grade students in Alkarak Directorate of education.

The study problem and questions

English language is one of the most important human achievements at the present time and the importance of learning it is increasing day after day and mastering it is among the priorities of educational systems. It is the international language of communication. This is due to its widespread and the large number of people who speak it. It is also the language of politics, through which international conferences are held and the language of economics which means it is the language used in global trade. It is also the language in which some important disciplines are taught, such as medicine, engineering, and technology, in addition to being a major requirement for most jobs in the world. present time: This required unparalleled attention compared to other academic subjects (Al-Orimi, 2021).

Despite its importance, students find difficulty in learning its skills, particularly the skill of writing- a case that the researcher noticed during her work as an English language teacher for the secondary stage. The researcher noticed that her students face difficulties in writing any text in English language, this confirms the outcomes of the international test held by the Global Education and Talent Solutions (ETS) which suggested that the students' level in the different skills of English Language was not satisfying, indicating a low level among students in English language (Al-Rai, 2018).

Several studies confirmed the low level among students in the skills of writing in English language. (Al-Rokaibat, 2022) suggested that the students' level in the writing skills was below average. Also (Al-Barahma and Hamza, 2022) and (Al-Hamadi, 2022) suggested that students complain of their low levels in the skill writing in English language. Accordingly, the study problem can be determined in the following question:

1. Are there any statistically significant differences at ($\alpha \leq 0.05$) in the level of writing skills among the male students of the tenth grade attributed to the way of teaching (Articulate Storyline, Google Classroom, and the conventional way)?

The purpose of the study

This study aimed at achieving the following purpose:

1. Identifying the impact of using (Articulate Storyline, Google Classroom) in developing the writing skills in English language among the male students of the tenth grade.

The study importance

The importance of this study lies in two domains: theoretical importance and practical importance.

Theoretical importance

- The theoretical importance of the study lies in coping with the technological developments of the current era, particularly as this study is interested in developing modern methods in teaching English language.
- This study contributes to developing a technological educational content based on two new software that may contribute to improving English Language learning and

dealing with the problems that could affect negatively on the student's learning of this subject

- This study could provide the scientific research with a theoretical content that could be a reference to the researchers specialized in the software of teaching English language.
- This study could open new horizons in this domain based on its results and the recommendations related to that.

The practical importance

- Directing the attention of those in charge of the educational process in Jordan by providing applied software for using (Articulate Storyline and Google Classroom) in teaching English language skills in general and the skill of writing skill.
- Encouraging teachers to use the strategies of teaching that depend on technology, such as teaching using (Articulate Storyline, Google Classroom).
- The study could be beneficial to the developers of the curricula, in terms of enriching the English language curricula with new technological applications.
- Urging educational supervisors to conduct training courses for teachers to help them use the technological applications in the educational process.

The study limits

- The spatial limits: the current study was limited to the schools of the directorate of education in Al-Karak District.
- The human limits: the current study was limited to the tenth-grade male students in Tamkeen Academy Private School in the directorate of education in Al-Karak District.
- The time limits: the current study was applied in the first semester of the academic year (2023/2024).
- The objective limits: the current study was limited to teaching the first unit of the English language textbook of the tenth grade (the first semester) using (Articulate Storyline, Google Classroom).
- The study limitations: the limitations of the current study are represented by the psychometric characteristics of its instruments.

The study terms

- **Articulate Storyline software:** it is one of the important electronic software for authoring and publishing electronic lessons, where it allows users to create professionally high interactive online educational courses, in addition to the ability to introduce advanced presentations and electronic exams (Al-Abdullah and Al-Hosari, 2022).

Procedurally, it is defined a software that used to develop the first module on tenth grade action pack English book then presented to the students by using smart board.

- **Google Classroom application:** it is a free educational service and social application that is easily used and mainly depends on the internet. It aims to create an electronic classroom to exchange the electronic content and digital applications. It also provides teachers and students with a safe environment for communication and interaction to make education more productive and effective (Mohammad and AbdulRaheem, 2021).

Procedurally, it is defined a free web service, and it relies on the Internet mainly to secure communication between the teacher, students, and parents in an organized manner that facilitates the educational process. This program offers cooperation and communication with students that used to develop the first module on tenth grade action pack English book then presented to the students using computer lab.

- **The writing skill:** it is a symbolic process that aims to encode language in a linear manner based on the connection between letters, so that each letter has a certain linguistic sound referring to it to convey the verbal message to the recipient and achieve a satisfying communication between individuals (Jab Allah, Makkawi and AbdulBari, 2011).

The skill of writing is procedurally defined as the ability of the female students of the tenth grade to, correctly, write the words and sentences pronounced by the teacher. The written words should be free from any mistakes and should express the pictures and drawings included in the unit in the right way after teaching those students by using (Articulate Storyline, Google Classroom). This skill is assessed based on the female student's score in the test prepared by the researcher.

- **The tenth-grade:** it is the highest grade in the basic education stage, where the students' age ranges between (16-17) years old.

Theoretical framework

The field of technology and communications witnessed a huge development , it has led to a tangible change in all areas in life especially in education which has made it necessary for officials of educational institutions to develop their organizational structures in accordance with the new changes because of the rapid development of these technologies, these institutions necessitate to characterized by flexibility and development to keep pace with these modern technologies and apply them in the field of the educational process to bring a tangible change for learners and to shift from teacher-based education to learner-based education with the continuous development of computer and information technology so the expectations have changed regarding the educational process , all its stages and new forms of receiving information are being used, which are predominantly digital (Al-Khataybeh & AlDarawsheh, 2023).

E-learning is considered one of the most important modern education methods to confront the great knowledge explosion that occurred with the advent of the communications revolution , the increasing demand for education and delivering educational content to students through sound, image and movement in a professional manner without regard to the barriers of time and space (Salem, 2022).Articulate storyline software is one of the modern e-learning applications that the student interacts with through slides in an interactive manner, represented by moving and still images, video clips, sound and musical effects(Zaki ,2021).

Articulate storyline (Created by Ad Schwartz Adliya) Production Software Company is one of the most used multimedia writing tools. To create interactive educational media with content in the form of images and graphics, sound, animation, and video. It is an application for creating interactive programs that the author can publish. Articulate storyline is a software that was launched in 2014. it presents the authority of the story clearly; many templates are so attractive that they can be traced back to the creation time. The simple appearance makes the work easy and helps to create a story, presentation using all the tools as different elements, working with

media, audio, or video, using the storyline facility and then publishing the evidence of the slander create it (Damois ,2015).

Qasim, 2022 defined Articulate storyline as a software of computers that was created specifically for people who want to design educational lessons professionally according to their desires. It allows for interactive lessons, tests, image, and slide shows. Where teachers can create educational content either via the Internet or special websites that manage the content by the company developing the program. Tutorials can also be published on content management systems (LMSs) or stored on hard disks.

Ramadan (2021) defined Articulate Storyline there is a tool that enables you to create and design electronic lessons in an interactive way without need to master programming languages.

Sahrrawi (2018) defined Articulate Storyline is a computer program for designing interactive lessons. It contains many important icons for the teacher's work and for presenting interactive presentations, recordings, and tests. It is easy to use in terms of inserting static and interactive media, publishing and running them through the program itself, or displaying them in video players and the Internet browser interactively. It is a program that supports the Arabic language and does not take up much space on the computer.

The researcher defines articulate storyline software as a computer program for creating interactive digital content and tests. It contains many important options for the teacher's work and for presenting interactive presentations, recordings. It is clear and easy to use in terms of including lessons and interactive media then publishing and running them through the program itself or displaying them in video players and an internet browser through the teacher's you tub channel or compressed file to give the students opportunities to interact with the content.

The importance of articulate storyline

Articulate storyline is one of the programs Featured software that helps the designer to design integrated presentations that contain slides as (Point Power) software , interactive tests , pictorial presentations and others that are exciting and controlled so that it provides many ways for publishing , publishing the presentation using an internet page, publishing on Microsoft word program and dealing with it as we do with mixed word processing programs and printing it on paper, this gives strength to the program so it is considered as one of the best programs for building and developing content (Zaki , 2021).

Iman Fadl(2013)remembered that the Articulate Storyline program is the best program are used in electronic educational lessons It is suitable for beginners and professionals and it has many features that distinguish it from the rest tools for writing and publishing electronic courses.

Khalif (2015) indicated that the software relies on the time bar feature which allows the designer to control movement, sound, presentation and delay of slides. When we make a comparison with the rest of the publishing and authoring programs, it becomes clear to us that it derives some of the characteristics of the power point program, indicating that it distinguishes the program from the rest of the other programs, including the ease of authoring. Ease of use for the user interface, many ready-made templates that can be used in building electronic tests, availability of various characters integrated into the programs that can be used in the electronic course. The ability to import content from other application projects for the program. As a result of these advantages and characteristics, the program was able to win several awards, including the Brandon Gold Award for the year 2017 for being the best technology presented

in publishing, digital authoring and designing electronic courses, whether on the internet or mobile phone.

According to Al Mohammad (2018) features of articulate storyline are:

Easy to use program interface and operation, Easy presentation design. It provides ready-made templates that can be used to create interactive electronic tests. Availability of various characters integrated into the program which can be used to explain interactive electronic content. Ease of inserting items and media into the program. Ability to import content from other projects and applications , screenshot ,easy to interact with and use Triggers, Variables, Timeline and Slide Layers, flexible design of interactive electronic tests , availability of various options for choosing the pattern of electronic exam questions and record live video footage without the need for additional tools and software.

Stages of preparing content using articulate stoyline software:

According of (AL Bahansawy ,2019)

First stage: analysis stage

- **Determine the characteristics of learners:** Determine the learner's educational level and their previous experience specially in using electronic lessons
- **Determining the subject purpose and the educational needs:** This includes analyzing the content and the educational tasks to determine the objective s of the lessons that we need to achieve.

Determining the available sources and materials: This includes Material resourcessuch as computers, input devices, storage media, audio devices.

the programs such as operating system programs, digital processing programs, production programs such as programming languages or authoring system programs to provide a limit.

Human Resources :such as work team with high technical in dealing with physical and software systems and qualified for production operations, as there are hardware, physical , human equipment and software necessary for production and use.

Second - Design stage

At this stage, the following is determined:

- a- **Formulating behavioral objectives:** Cognitive goals: These are goals related to the student's mental aspects and include the acquisition of information and mental and intellectual skills, such as the ability to analyses, synthesize and evaluate. psychomotor goals: These are goals related to the student's motor aspects, and include the ability to perform specific practical skills, such as drawing, music, and sports skills. Affective goals: These are goals related to the emotional, social and emotional aspects of the student and include the development of positive values, principles and trends, such as patriotism, cooperation and discipline.
- b- **Identifying the educational content:** This includes identifying the necessary elements of the content which lead to achieve the goals through extracting expressions and sentences that related to the topic, terminology and concepts from their actual sources then organizing them in a sequence that to achieve the goals in a way that is commensurate with the characteristics of the learners.Choosing learning experiences, method of teaching: The experiences that must be taught to learners and the teaching methods are determined which are individual, cooperative or group.
- c- **Choosing materials and educational media:** This involves all the media that required to produce the electronic lesson including images, animated drawings, videos, audio or music, during design of the scenario. The scenario includes these elements:, description

of its contents, static drawings, written text, screen number, pictures, , pictures and animation, a sketch description of the screen, voiceover, music, sound effects, the method of linking, moving between screens and the following figure shows what the scenario looks like. Developing a learning strategy: determining the type of educational strategy which used in designing the program such as : training and practice, leadership, simulation and modeling, educational games and problem solving. Building an evaluation test: to measure the goals which have been achieved. The evaluation tests include the following types: formative evaluation, diagnostic evaluation, Initial evaluation, summative evaluation and tracking evaluation.

Third - Production stage

the following is determined, at this stage.

- Preparing educational materials and producing it: This includes texts, preparing educational drawings, photographs, filming video and recording sound.
- Programming the electronic lesson: using one of the electronic lesson production programs as articulate storyline and google classroom.

Fourth - Evaluation stage

At this stage, the following is determined

- A mini trial for constructive assessment work: The experiment is initially after each stage of production to determine the positives and negatives the process of revision and in the electronic lesson are tested to allow the addition, deletion, or modification, then presenting it to experts and specialists in educational technology and in the scientific material to ensure its suitability to achieve the goals and making the necessary amendments.
- making the final evaluation: It will be after the completion of preparing the electronic lesson in its final form. It will be tested on large groups of students.

Fifth - Use stage

This stage includes:

- Merging, copying and continuous follow-up and evaluation.

Google classroom

The challenges of the current era have pushed educational institutions to adopt communication technologies and their latest developments to achieve their goals according to the educational system. "Google website" had a prominent role in developing modern and advanced technologies in the field of the Google educational package which contributed to the development of the educational process to suit it with the skills of the first century. (AlOwaisat ,2022).

The Google Classroom service is considered a major leap towards the development of educational processes and the classroom service is an effective tool using technology, instead of papers to present scientific content to students and follow them up. During the previous trial period, teachers expressed their unwillingness to wait until the end of the job period to cooperate with students so they can now review the assignments and comment on their solution during their period which helps students to improve the solution. What is also new to the service is the addition of a page in each course where it is possible to write information and place the scientific content of the subject for review. In addition, the service is available in 42 different languages, including Arabic and other languages works on mobile phones and tablets as well

as personal computers. To start with the platform, the user goes to the service website and registers using his personal account for the applications. (Google D, 2017)

(Teodora & Ioana (2017) defined it as: A computerized system based on the Internet that integrates G Suite educational applications with all other services and applications of G Suite and all Google applications and allows its users to provide e-learning and manage its operations.

(DiCicco, 2016) claims that it is an electronic application that includes many Google services such as e-mail, files uploaded to the cloud, Google Forms for creating tests and questionnaires and Google Presentations. It allows the creation of virtual classrooms through which the educational material, tasks, activities, and assignments can be presented, and students can get immediate feedback by logging into the program can be accessed from anywhere within real-life classrooms or homes.

The researcher defines it is a free web service and it relies on the Internet mainly to secure communication between the teacher, students and parents in an organized manner that facilitates the educational process.

The characteristics and features of the Google Classroom software

are as follows (Google Classroom) and its features are as follows (Google D, 2017) (Teodora & Ioana, (Google C, 2017): free application: The company provides the application to all users for free.

The application takes place directly through the Internet which allows its users to access their classes and manage the process from any place and time the user desires. Cloud computing allows application users to upload files and access them from anywhere in the world without cost or special equipment and to benefit from all the other features of cloud computing. It does not require special equipment (central devices and special infrastructure) or specialized technicians, educational institutions suffer from the high cost of equipping the infrastructure for learning management systems. A specialized staff must be provided to download the application and manage it technically with a central device available, but the Google application does not need this; Any teacher can deal with it and only needs a company account. It is free and allows direct access to the system.

The application supports all languages of the world, especially Arabic, without the need for subscriptions or special updates. Works on personal or laptop computers, smart phones, and tablets (PCs, Laptops, Smart Phone, iPad). Works on all operating systems (Windows, Mac Android, iPhone/iPad, Web-based, Windows Mobile) Works on all browsers (Google Chrome, Firefox, Internet Explorer, Safari).The application interface is easy and familiar to users of modern applications.

The importance of Google classroom software

According to (Teodora & Ioana, 2017), Google classroom has many special features such as

a. Time saving features

This feature allows integration of EdTech instruments with Classroom add-ons, feature of scheduling assignments for multiple classes, addition of students to a new course by sharing a link or code, management of multiple classes at once, and taking and sending photos of your business with an enhanced photo capture feature

b. Improved features for grading and adding notes and opinions

This feature allows moving from class to assignment or student profile easily, track student progress through the grade book, export results from the gradebook to the Student Information System (SIS), synchronize lists of students registered in classroom from the student information system, display rubrics alongside the student's work, make customizable comment log, make notifications about students' performance and work, assignments, deadlines, and summaries of student performance.

c. Personalized learning features

This feature includes settings that students can adjust to make it easier for them to use learning technology while supporting multiple languages. It also prepares student accounts to develop a customized educational plan for each one.

d. Organizational features

This feature includes programmed calendar reminders, pages for student assignments and pages for teachers to review, and the ability to automatically generate sample course assignments for student.

Features of authentic

This feature enables students to search for suggested citations to enhance their work and research. It also enables teachers to use originality reports to ensure that student work is original, and monitor any correspondence between each student's work and previous work of other students saved in a repository within the domain.

Statistical features

This feature includes access class audit logs directly from the admin support, study events in detail and accurately identify performance or security problems, and export Classroom records to BigQuery.

Security features

This feature enables only account holders with unique login credentials to access a domain on Google for Education, limit classroom activity to its members only, and make a global network with multiple, comprehensive security layers with 99.9% uptime guaranteed. It also includes no advertisements in Google Classroom and student personal information is not available for AD targeting. It also follows the best international education standards in terms of security and privacy, as security-related aspects are audited by external organizations.

Writing skill

Writing is a mental process in which the writer is keen to generate ideas, organize them and formulate them as required. It is one of the skills of the English language and it includes many types and images such as functional, administrative, creative, persuasive, writing aims to develop the writer's ability to express clearly and soundly, provide him with the skills of critical, organized thinking and confront different life situations.

Writing is a means of communication through which an individual expresses his thoughts and feelings, writes them down and conveys them to others. It also enables the individual to view the ideas of others and learn about the development they had brought about in the lives of individuals and societies. Writing is characterized as a mental, intellectual process that the

individual performs after going through the stages of many, eventually reaching calligraphy or words written on paper (Marji, 2007).

Also, Alyan (2008) defined writing as a process characterized by complexity and difficulty. In it the abstract ideas, meanings and mental images of their creator are transformed into written symbols. Writing is an educational means for generating ideas, discovery and learning. It has an important role in showing the emotions and problems inside the writer which contribute to the growth and integration of the students' personalities through expressing the feelings, sensations and thoughts inside him (Dixon et al., 2005).

Topping (2001) believed that writing is a complex process needs requirements to be used effectively and these requirements include generating ideas and organizing them, writing outlines, editing, assessing the writers' inclinations and desires. Moreover, Javed (2013) defined it as constructing and assembling sentences linguistically correct to convey the meaning to the reader. He also defined it as learning and practicing the use of language rules through writing exercises in a manner with correct in terms of linguistic structure and spelling.

Types of writing

a. Creative writing

It is called artistic writing, as it is an expression of feelings, personal emotions and human experiences with coordinated words and phrases that allow the reader to interact with the writer. It is an innovative style of writing that varies from one person to another according to his circumstances, skills, experiences and linguistic abilities often begins with instinct. It also develops through knowledge and training, meaning that type of writing requires talent. Creative writing includes writing stories, writing poetry, thoughts, articles and novels (Popa, 2023)

b. Functional writing

It is also called practical writing, as it is a method of formal expression of what a functional need requires such as official and government correspondence, instructions, guidelines, memos and advertisements. This type does not require talent, but rather training and knowledge of functional writing methods (Collins, 2023).

The Writing processes

The process of writing skills includes five parts which are as following: (Schmitz, 2012).

- a. **Prewriting:** The writer generates new ideas to write about it.
- b. **Outlining a structure of ideas:** The writer determines the structure of the topic and makes the outline to organize his ideas.
- c. **Writing a draft:** The writer does a first draft to cover his ideas and organize them
- d. **Revising:** The writer reshapes the content and revises it to add or delete paragraphs or phrase the main point differently, expand on important ideas and reorganize the content.
- e. **Editing:** The writer makes changes to improve the style, replace the words and correct the grammar mistakes.

General rules for effective writing

According to liz, lyons, & Heasley, (2006), Abu Hamda, (2012) Al-Khataybeh, and AlDarawsheh (2023) writing is a skill that anyone can pick up by focusing not only on what you had to express and how to express it, but also by concentrating on those rules that are most likely to help you write successfully and help the readers to understand you topics.

- a- **Completeness:** A complete message is the message that answers the six well-known questions: (Who?), (When?), (What?), (Where?), (Why?), (How?).
- b- **Briefing:** This is the middle stage between disruptive brevity and boring length.

- c- **Accuracy:** It means correctness and specificity.
- d- **Objectivity:** such as separating opinion from fact and achieving integrity and balance.
- e- **Simplicity:** Simple writing is that which is easy for audiences to absorb and understand.
- f- **Clarity:** It is in form and content, knowing that in the case of expressing deep meanings, complex ideas, simplicity and clarity are not synonymous, in that case their meaning is not the same.
- g- **Appropriateness:** It agrees with the interests of the recipient.
- h- **Positivity:** It is the positive spirit that the recipient feels.
- i- **Emphasis:** It is to highlight the strength of significant meanings, but with caution and without affectation.
- j- **The technique of the medium:** It is the compatibility of the writing with the technical standards of the media outlet. Mastery of reading and writing skills is considered a major factor for students' success in performing the required educational tasks this depends on the teacher's ability and capacity to teach these students, using various methods including learning, using the articulate Storyline software, and learning using the Google classroom software (Google-classroom) specifically for basic education students).

Literature Review

This chapter delves into the previous studies relating to the current study variables adopted in preparing the study instruments. To attain this, the chapter is divided into two key sections as follows: Studies relating to the Articulate Storyline Software Teaching Method, Studies related to Reading skill as the whole studies are chronologically arranged from oldest to most recent ones, analysis and comment on studies relating to the Articulate Storyline Software Teaching Method, and analysis .

1. Studies Relating to the Articulate Storyline Software Teaching Method

Lababna (2020) investigated the impact of the Articulate Storyline software on developing cognitive flexibility and environmental self-awareness in geography of 10th-grade students in Jordan. The quasi-experimental research approach was adopted. The study sample consisted of (55) 10th-grade students in schools affiliated with the Al-Taybeh and Al-Wasatiya districts in Irbid Governorate is distributed into two groups: a control group of (27) students taught using the traditional teaching method and an experimental group consisting of (28) students taught using Articulate Storyline program. The cognitive flexibility test, environmental awareness test, and achievement test were adopted as research study instruments. The results asserted statistically significant differences between the means of students' performance on the cognitive flexibility test due to the teaching method in favor of the experimental group. Also, there were statistically significant between the means of students' performance on the environmental awareness test due to the teaching method in favor of the experimental group.

Mumtahana, Roesminingsih, and Suyanto (2020) work developed an education-based content using multimedia on the computer according to the Articulate Storyline program to improve achievement in national education among 3rd-grade primary school students in Indonesia. The quasi-experimental research approach was adopted to achieve the research study objectives. A sample consisted of (48) students is distributed into two equal groups: A control group taught using the traditional teaching method and an experimental group taught using the Articulate Storyline program. An achievement test is also adopted as a research study instrument. The findings showed that there was a statistically significant difference between the control and experimental groups in the post-test in favor of the experimental group. Moreover, a statistically significant difference is found

between the means of the scores of the experimental group students in the pre-and post-applications of the achievement test in favor of the post-application.

Al-Awassa (2016) pinpointed the impact of designing interactive e-educational content using the Articulate Storyline on developing reading skills among kindergarten students in schools in Southern Mazar District. The quasi-experimental research approach is utilized to achieve the study objectives. A study sample consisted of 60 male and female students is distributed into two equal groups: a control group taught was using the traditional teaching method and an experimental group taught using the Articulate Story software. For study purposes, the education-based material is designed according to the Articulate Story program. An achievement test for reading skills is also used as a study instrument. The results indicated no statistically significant differences between the experimental and control groups in the pre-test. The findings also showed statistically significant differences between the experimental and control groups in the post-test in favor of the experimental group.

Al-Abdullah and Al-Husri (2022) explored the effectiveness of education-based software designed using the Articulate Storyline program in the achievement of 3rd-grade students in Mathematics. The quasi-experimental research approach was adopted to achieve the research study objectives. A study sample (70) male and female students from Qutaiba bin Muslim Al-Bahili School in Damascus City was distributed into two groups: an experimental group of (34) students taught using the education-based software and a control group of (36) students taught using the traditional teaching method. An achievement test was also designed as a research study instrument. Statistically significant differences were found between the experimental and control groups in favor of the experimental group. The results also confirmed statistically significant differences between the experimental group in the pre-and post-applications in favor of the post-application of the achievement test.

Al-Masry and Al-Heila (2023) investigated the impact of Articulate Storyline software on developing reading and writing skills in the English language of 3rd-grade students in Giza District. The quasi-experimental research approach was adopted to achieve the research study objectives. A study sample comprising 60 male and female 3rd-grade students at Nusaybah Al-Maznieh School affiliated with the Giza District Directorate is distributed into two equal groups: a control group was taught using the traditional teaching method and an experimental group that was taught using the Articulate Story software. Two tests for reading and writing skills was also used as research study instruments. The results revealed differences in the pre-and post-performance of the two study groups in favor of the experimental group.

2. Studies Relating to the Google Classroom Software Teaching Method

Al-Amour (2016) conducted a study that aimed to identify the effect of using Google Classroom software on the acquisition of scientific concepts in the unit of blood among tenth grade students in the Palestinian Negev. The study used a quasi-experimental approach, and the study sample consisted of (133) male and female students, distributed into two groups. An experimental group consisting of (63) male and female students who studied using the (Google Classroom) software, and a control group consisting of (69) male and female students who studied in the usual way. The study adopted the test as its tool, and the study concluded that there were statistically significant differences in the test for the acquisition of scientific concepts due to the method. Teaching is in favor of the experimental group, which indicates that there is an effect of using Google Classroom software on the acquisition of scientific concepts in the blood unit.

Al-Obaidi (2021) ascertained the impact of using the Google Classroom application on developing reading and writing skills and acquiring grammatical concepts in the mother tongue subject “Arabic Language” among Arab students studying the mother tongue Arabic in middle school in Sweden. The quasi-experimental research approach was adopted to achieve the research study objectives. A research sample consisted of (43) male and female students in the 8th- and 9th grades purposefully selected from five schools in the city of Göteborg in the Kingdom of Sweden were distributed into two groups: an experimental group consisting of (23) male and female students were taught using the Google classroom and a control group consisting of (20) male and female students were taught the same subject using the traditional teaching method. An achievement test was prepared. The results showed that there were statistically significant differences between the means of developing reading skills among students of the experimental and control research groups regarding reading subjects in favor of the experimental group. The findings indicated that there were statistically significant differences between the mean of the acquisition of grammatical concepts among students of the experimental and control groups in favor of the experimental group. The results also demonstrated differences between the means of developing writing skills among students of the experimental and control groups in favor of the experimental group.

Nour El-Din's study (2022) aimed to investigate the effect of hybrid learning via Google Classroom on developing English writing skills among female preparatory school students. The study used the quasi-experimental approach, and the study sample consisted of (60) female students who were randomly selected from the second year of middle school at Nour Al-Islam Model Institute for Girls in Damietta. They were divided into two equal groups: an experimental group that studied according to the Google Classroom application, and a control group that studied according to the usual method. The study used the test as a tool to collect its data, and the program based on hybrid learning via Google Classroom was applied to the experimental group for a period of twelve weeks, while the program was based on hybrid learning via Google Classroom. Teaching the control group using the traditional method. The results of the study indicated that there were statistically significant differences between the average scores of the experimental group and the control group in the post-writing test in favor of the experimental group. The results confirmed that using the program based on hybrid learning via Google Classroom helped the students in developing their writing skills.

Al-Shaer's study (2023) aimed to identify the impact of using Google Classroom software on developing the productive skills of learners of English as a “foreign language” in the eleventh grade in Jordan. The study used the quasi-experimental approach, and the study sample consisted of (40) eleventh grade female students from Al-Khansaa Secondary School in Sahab District. They were distributed into two equal groups: a control group that studied in the usual way and an experimental group that studied according to the (Google Classroom) software. To achieve the goal of the study, the test was adopted. To know the effect of the software used on the level of female students, the study concluded that there were statistically significant differences at the level ($\alpha = 0.05$) in favor of the female students in the experimental group that was taught using the software (Google Classroom)

Al-Fayez (2021) identified the impact of the Google Classroom software in teaching the life sciences subject for the 9th-grade students in the university district schools in Amman and its impact on motivation towards learning, developing scientific concepts, and achievement. The quasi-experimental and qualitative research approaches were utilized to achieve the study objectives. A study sample consisted of (110) female students were distributed into two equal groups: a control group that was taught using the conventional teaching method and an experimental group that was taught using the Google Classroom software. A motivation

measure, an achievement test, and a test of scientific concepts were also used as study instruments. The findings indicated a statistically significant difference in achievement in favor of the experimental group.

Comments on the studies in the first section articulate storyline :

Through the researcher's review of previous studies that dealt with the Articulate storyline software, it became clear to her that there are areas of agreement and difference between the current study and previous studies, which can be clarified in the following:

In terms of its objective, the current study agreed only with the study of Al-Masry and Al-Hila (2023), which is to investigate the effect of the Articulate Story software on developing writing skill in the English language for third-grade students.

In terms of method, the current study agreed with all previous studies in the approach followed, which is the quasi-experimental approach.

In terms of the tool, the current study agreed with previous studies in terms of the tool, which is the achievement test. However, the study by Lababna (2020) adopted the flexibility measure in addition to the test.

- As for the population, which is the students of the tenth grade, the current study agreed only with the study by Lababna (2020), and differed with the rest of the other studies, Al-Awasa's study (2016) dealt with kindergarden students and the study of (Mumtahana, Roesminingsih, & Suyanto, 2020), Al-Masry and Al-Hila (2023), and Al-Abdullah and Al-Husri (2021) dealt with third-grade students,.
- The current study agreed with all previous studies in the results it reached that confirm the effectiveness of the Articulate storyline software in the educational process.

Comments on the studies in the second section google classroom :

Through the researcher's review of previous studies that dealt with the Google Classroom software, it became clear to her that there are areas of agreement and difference between the current study and previous studies, which can be clarified in the following:

In terms of its objective, the current study agreed with Al-Obaidi's study (2021), Nour El-Din's study (2022) and Al-Shaer's study (2023) which is to measure the effect of Google Classroom on developing writing skill in the English language, while it differed with the rest of the studies.

In terms of methodology, the current study agreed with all previous studies in the approach followed, which is the quasi-experimental approach.

In terms of the tool, the current study agreed with previous studies in terms of the tool, which is the achievement test. However, the study by Al-Fayez (2021) adopted a measure of learning motivation in addition to the test.

In terms of society, the current study agreed only with the study of Al-Amour (2016), which is the students of the tenth grade, and it differed with the rest of the other studies, as the study of the poet (2023) dealt with the students of the first year of secondary school, and the study of Al-Fayez (2021) dealt with the students of the ninth grade, Al-Obaidi's study (2021) dealt with

students in the eighth and ninth grades, while Nour El-Din's study (2022) dealt with students in the third grade.

The current study agreed with all previous studies in its findings confirming the effectiveness of Google Storyline in the educational process.

Design and Methodology

This chapter gives an insight into the study methodology, the procedures adopted in selecting the study participants, and the instruments utilized in the study, alongside a clarification of the procedures for checking the validity and reliability indicators of these instruments, as well as the related procedures and statistical processing used to attain the study results.

Study Approach

A quasi-experimental approach based on a matched groups design was utilized to achieve the study purposes by selecting two experimental groups; the first experimental group was taught using the Articulate Storyline software, the second experimental group was taught utilizing Google Classroom software, and one control group was taught using the conventional teaching method.

Study Sample

The study sample was purposefully selected from tenth-grade male students in Karak schools. The selected sample comprised (68) male students at Tamkeen Academy School divided into three groups: the first experimental group consisted of (22) male students that was taught using the Articulate Storyline software, the second experimental group consisted of (22) male students that was taught utilizing Google Classroom software, and one control group consisted of (24) male students that was taught using the conventional teaching method.

Study Instruments

To achieve the study purposes, a writing test was designed using Module One "Starting Out" and Unit One "A New Business Idea". The teaching-based content is also prepared according to the Articulate Storyline software and the Google Classroom software. The following is a detailed overview of the utilized instrument.

Writing Test

Preparing the initial form of the reading test required recognizing the reading test objectives, as they aimed to measure the extent of possession of pre- and post-writing skills in the selected unit in the English language subject among tenth-grade male students, along with identifying the teaching-based content and the related writing skills. Determining the type of test vocabulary was also needed as the writing test of the multiple-choice type was designed and prepared with the use of Module One "Starting Out" and Unit One "A New Business Idea", where each question consisted of four alternatives. Also, designing a table of specification for the writing test was required as a table of specification was constructed in light of the significance and relative weight of each topic in the selected unit and for each area of behavioral objectives. Table (1) illustrated those specifications.

Table (1)*Specifications for the Writing Test*

Level	Objectives Number	Relative Weight	Number of Test Items	Mark
Remembering	3	%25	5	5
Understanding	0	%0	0	0
Application	6	%50	13	10
Analyses	3	%25	1	5
Evaluation	0	%0	0	0
Creative	0	%0	0	0
Total	12	100%	20	20

The test items were designed according to the content analysis and the table of specifications, as the test was prepared in its initial form from (20) multiple-choice items.

Writing Test Validity

The writing test was reviewed and validated by the same jury of (10) experienced and specialized experts at Mutah University and the Ministry of Education. Having been introduced to the research title and the purpose of preparing the test, the experts were cordially requested to express their opinions and comments about the linguistic validity of the test items, the suitability of the items to the characteristics of the target group of the test, and the items' appropriateness to thinking areas to suggest what they deemed appropriate in terms of deletion or modification. Given the experts' comments, the wording of some questions and alternatives was modified based on, and thus the test in its final form consisted of (20) items.

Writing Test Pilot Experiment

To check the appropriateness of the test for the target group, it was applied to a sample of (24) male students from the study population, outside of its sample, to calculate the coefficient of difficulty, coefficient of discrimination, and reliability coefficient. Difficulty and discrimination coefficients for the items were calculated for the male students' answers to the test questions applied to the pilot sample. Table (2) illustrated those values.

Table (2)*Difficulty and Discrimination Coefficients for Writing Test Items*

Item No.	Difficulty Coefficients	Discrimination Coefficients	Item No.	Difficulty Coefficients	Discrimination Coefficients
1	0.71	0.50	11	0.50	0.42
2	0.79	0.42	12	0.42	0.50
3	0.50	0.67	13	0.38	0.58
4	0.42	0.75	14	0.25	0.58
5	0.38	0.50	15	0.29	0.25
6	0.50	0.50	16	0.63	0.58
7	0.63	0.58	17	0.50	0.58
8	0.46	0.33	18	0.58	0.67
9	0.58	0.42	19	0.63	0.42
10	0.67	0.50	20	0.42	0.75

As gleaned from Table (2), the values of the difficulty coefficients for the writing test applied to the pilot sample ranged between (0.79) and (0.25), indicating that the difficulty coefficients for the test questions fell within the acceptable degree, which ranged from (0.20) and (0.80) (Odeh, 2005). The difficulty coefficients for the test questions were acceptable for applying the test in the current study, and thus all test questions were approved based on the previous results. Moreover, Table (2) illustrated that the values of the discrimination coefficients for the test questions applied to the pilot sample ranged between (0.25) and (0.75), where the calculated values of the discrimination coefficients for the test ranging between (0.25) and (0.75) were considered educationally acceptable for adopting the test in the study (Odeh, 2005). Accordingly, no test items were deleted based on the results of calculating the previous difficulty and discrimination coefficients.

Writing Test Reliability

To check the test reliability, the method of pre- and post-test was used by applying it to the same pilot sample consisting of (24) male students from the study population and outside of its sample. Two weeks after the first application, the test was applied to the same sample again. The instrument reliability was checked by calculating the Pearson correlation coefficient between the two application times, where the reliability coefficient for the writing test was (0.82); therefore, these values were acceptable for the current study.

Regarding reading test instructions, a set of instructions was developed and explained to the students to clarify the objective of the test and how to deal with it. The student's understanding of the instructions was confirmed by asking the students during the application about any ambiguity or difficulty in understanding the test instructions, as all the students in the pilot sample showed their opinion that they are clear.

About test correction, one mark was assigned for each correct answer to each test question, so that the highest score that could be obtained on the test was (20) and the lowest was (0) (Al-Daman, 2007). Concerning the reading test time, it was determined by calculating the mean of the time for submitting the pilot sample, where the mean time taken by the pilot sample members was (45) minutes according to the following equation:

$$\begin{aligned} \text{Test Answer Time} &= \frac{\text{Answer Time of the First Five Students} + \text{Answer Time of the Last Five Students}}{10} \\ &= \frac{225+175}{10} \quad 45 \text{ Minutes} \end{aligned}$$

Equivalence between Study Groups

The equivalence between the three study groups in writing tests for the 10th-grade male students in Al-Karak in the English language subject was determined by using One-Way ANOVA "analysis of variance". Table (3) illustrated the means and standard deviations for the pre-study groups, while Table (4) showed the results of the One-Way ANOVA "analysis of variance" before starting the study.

Table (4)

Means and Standard Deviations of the Performance of Tenth-Grade Male Students Writing Tests in the Pre-Application

Test	Group	Pre-Test	
		Means	Std. D,
Writing	Articulate Storyline	6.18	3.43
	Google Classroom	5.45	2.91
	Control Group	5.58	2.70

As shown in Table (4), there were statistically significant differences among the means of the three study groups. To examine the significance of these differences, One-Way ANOVA "analysis of variance" was used.

Table (5)

Results of a One-Way ANOVA "Analysis of Variance" to Examine the Equivalence between the Study Groups on the Two Reading and Writing Skill Tests in the Pre-application

Dependent Variable	Source of Variance	Sum of Squares	of DF	Mean Square	F-Value	Significance
Writing Test	Between Groups	6.675	2	3.337	.366	.695
	Within Groups	592.561	65	9.116		
	Total	599.235	67			

As shown in Table (5), there were no statistically significant differences at the level ($\alpha \leq 0.05$) in the pre-achievement test among the three study groups. The results also indicated that there were no statistically significant differences at the level ($\alpha \leq 0.05$) in writing pre-test among the three study groups, indicating that the three groups were equivalent before starting the study.

Study Variables

The study includes the following variables: independent variable which was the teaching method that has three levels: teaching using Articulate Storyline software, teaching using Google Classroom, and the conventional method. Dependent variable also includes writing skill level.

Study Application Procedures

This section introduced the required procedure to apply the study. There are four procedures as follows:

The First Stage Procedures: Analysis Stage

The analysis stage procedures pass through three sub-stages, as follows:

a. Content analysis procedures

- The content of the study unit to be taught to the students was determined by the researcher.

- Analyzing the elements of the study unit which was the first unit of the English language book for the tenth grade
- The researcher converted the content analysis subjects of the study into digital content
- Determining the learning outcomes to be achieved and defining the plan.
- The time that students took to study the content all of these by using the teacher's guide for the English language book for the tenth grade.

b. Analysis of learners' characteristics

- Determining the school in which the study was applied, which was Al-Tamkeen Academy because the researcher was one of the school's teachers and was aware of the availability of technological capabilities there, such as the computer laboratory and the smart board.
- Determine the grade to be taught which was the tenth grade, which consisted of three male classes
- The skills of all students in the research group in dealing with the Internet were explored and confirmed.
- The researcher stated that all students possessed the basic skills in dealing with the Internet before starting to implement the study experience by creating a group on WhatsApp that included the researcher and the students.

c. Analysis of the educational environment

- It was confirmed that Internet service is available in the school where the study will be implemented.
- Ensure the availability of a computer laboratory to teach the study unit through Google Classroom application.
- Ensure the availability of a smart board to teach the unit through the Articulate Storyline software.

The Second Stage Procedures: Design Stage

The design stage procedures consist of two sub-stages, as follows:

a. Collecting Resources

- Purchasing the Articulate Storyline software and downloading it onto the researcher's laptop.
- Downloading Google Classroom application onto the researcher's computer through the following website <https://sites.google.com>. That link was done through "Google sites" Education. This site was chosen because of its ability to create free forms through your Gmail account, and digital content was designed across the web.
- Searching in scientific references and the Internet to obtain images and video clips and topics for the course content under research.
- Identifying and designing electronic sources which were used in educational units on educational electronic software.

Setting the educational activities, educational progression exercises, and prescribed grammar topics and tests were done at the end of each lesson.

b. Design Stage

- Reviewing websites specialized in designing educational platforms across the web and on the ready-made forms found on these sites.
- Creating a virtual class on Google Classroom and name it, Tenth Grade, Section c . (Appendix I) .

- Creating a project on Articulate Storyline software and name it, tenth grade, section A . (Appendix II) .
- Developing the digital content which was the first unit of the tenth grade book “Action Pack” using both pieces of software of Google Classroom and articulate storyline, with what they contained of educational activities and the four English language skills: reading, writing, listening, speaking, and educational tasks that stimulated students’ interaction to explore the possibilities provided by articulate storyline and google classroom.
- Designing the lessons plan for articulate storyline software.
- Designing the lessons plan for google classroom application.
- Designing the lessons plan for the conventional section.
- Preparing study instruments writing test, and education-based content using the pieces of software of the Articulate Storyline and Google Classroom” after reviewing the related theoretical literature and previous studies related to the subject.
- Reviewing the study instrument and making the required modifications according to the experts’ comments, applying writing test to an exploratory sample from outside the study sample and within its population.
- Reviewing the digital content which was presented on the education software of the Google Classroom and Articulate Storyline to 10 experts specialized in educational technology and 10 experts specialized in the English language that made a set of observations regarding the formulation of the objectives of the topic within each slide, and the appropriate modifications were made.

The Third Stage Procedures: Development Stage

The procedures related to the development stage are as follows:

- Training students to use the educational software of the articulate Storyline and Google Classroom application and how to interact with the content, solve the required activities and tasks and move from one slide to another by distributing some instructions for using the educational software whereas the user guide is designed for teachers in their perspective works .
- Creating an email for each student in the computer laboratory with the help of the computer teacher so that the students could enter the virtual classroom using Google Classroom application and distributing the code for the virtual class for the application to the students, who were students in the tenth grade, Section c, whereas the user guide is designed for teachers in their perspective works .
- Creating a group on WhatsApp for the students of the tenth grade, Division A to send the compressed files for each lesson that was presented using the Articulate Storyline software using the smart board so that the student could interact with the content and refer to it later.

The Fourth Stage Procedures: Application Stage

The study application included several key procedures such as:

- Obtaining official approval to carry out the study procedures and apply them in AL Karak directorate schools.
- Applying the pretest writing skill for the whole groups on October 1st, 2023 and checking the paper of the exams and saving the results.

- Teaching the tenth grade, Section A, “first experimental group” the first unit of the English language book, using the Articulate Storyline software at a rate of three lessons per week, and using the smart room that contained the Internet and the smart board, which facilitated the presentation of educational content.
- Teaching the tenth grade, Section C, (second experimental group), the first unit of the English language book using the virtual classroom on Google Classroom application at a rate of three classes per week and using the computer laboratory that contained the Internet and computers that facilitated the presentation of educational content.
- Teaching the tenth-grade section B (control group) the first unit of the English language textbook, using the regular course at a rate of three classes per week using the classroom that contained a blackboard to display the content and a small speaker to display the audio material.

The Fifth Stage Procedures: Evaluation Stage

The procedures of this stage can be read as follows:

- Applying the writing posttest on November 12th 2023.
- Correcting students’ papers in tests based on the prepared sample correct answers for writing tests by the researcher.
- Collecting data, analyzing it statistically, and obtaining study results.

Statistical Processing

Means and standard deviations were calculated to answer the first study question. One-way ANOVA “analysis of variance”, effect size “eta-squared”, and post-comparisons using Scheffé’s method were used to answer the study question.

Results related to the Study Question which states “Are there any statistically significant differences at ($\alpha \leq 0.05$) in the level of writing skills among the male students of the tenth grade attributed to the way of teaching (Articulate Storyline, Google Classroom, and the conventional way)?”

To answer this question, means and standard deviations of the performance of tenth-grade male students in the writing test were calculated. Table (10) illustrated those results.

Table (6)

Means, Standard Deviations, and Adjusted Means for the Performance of Tenth-Grade Male Students in the Writing Test

Group	Pre-Test		Post-Test		Adjusted Mean	Std. Error	Number
	Mean	Std. D.	Mean	Std. D.			
Articulate Storyline	6.18	3.43	17.18	2.81	17.023	0.537	22
Google Classroom	5.45	2.91	14.09	2.79	14.191	0.536	22
Control	5.58	2.70	8.08	2.55	8.137	0.513	24

As indicated in Table (6), there was an apparent discrepancy in the means, standard deviation, and adjusted means for the performance of tenth-grade male students in the writing test due to

the different categories of the variable group of “the first experimental group which was taught using Articulate Storyline, the second experimental group which was taught using the Google Classroom application, and the control group which was taught using the conventional method”. To demonstrate the statistical significance of the differences among the means, One-Way ANOVA “analysis of variance” was used. Table (11) showed ANOVA results.

Table (7)

One-Way ANOVA “Analysis of Variance” of the Effect of Teaching Method on the Performance of Tenth-Grade Male Students in the Writing Test

Source	Type III Sum of Squares	DF	Mean Square	F-Value	Significance	Eta Squared
Pre-Measurement	75.274	1	75.274	11.935	0.001	
Group	950.448	2	475.224	75.348	0.000	0.702
Error	403.651	64	6.307			
Total	12910.000	68				
Corrected Total	1469.941	67				

As shown in Table (7), there were statistically significant differences between the means of the grades of male students in the three groups; The first experimental group which was taught using the Articulate Storyline software, the second experimental group which was taught using Google Classroom application, and the control group which was taught using the conventional method due to the teaching method. The calculated (F) values were (75.348), where these values were statistically significant at level ($\alpha \leq 0.05$). To determine the direction of these differences, post-comparisons using Scheffé’s method were used. Table (8) showed the results.

Table (8)

Post-Comparisons Using Scheffé’s Method for the Effect of the Teaching Method Variable

Adjusted Mean	Groups	Differences among Means		
		Articulate Storyline	Google Classroom	Conventional
17.023	Articulate Storyline	*2.832	*8.885
14.191	Google Classroom	-*2.832	*6.053
8.137	Conventional	-*8.885	*-6.053

As gleaned from Table (8), there were statistically significant differences between the mean scores of the first experimental group which was taught using the Articulate Storyline software, and the control group which was taught using the conventional method in the writing test in favor of the experimental group. It was also found that there were statistically significant differences between the mean scores of the second experimental group which was taught using the Google Classroom application and the control group which was taught using the conventional method in the writing test in favor of the experimental group. Moreover, it was shown that there were statistically significant differences between the mean scores of the first experimental group which was taught using the Articulate Storyline software and the second experimental group which was taught using the Google Classroom application in the writing test in favor of the first experimental group.

To reveal the effect of the teaching method “Articulate Storyline software and Google Classroom application” on developing writing among tenth-grade male students in the English language subject, an eta square (η^2) was calculated to measure the effect size, which was (0.702), indicating that (70.2%) of the sample members’ variance on the reading test was due to the teaching method. Abu Hatab and Sadiq (1991) confirmed that the effect size that explained less than 6% of the total variance indicated a small effect, while the effect that explained about (6%) of the total variance was considered a medium effect. However, the effect that explained about (15%) or more was considered a large effect.

Discussion of the Results related to the Second Study Question

Given the study results, statistically significant differences were found between the mean scores of the first experimental group which was taught using the Articulate Storyline software and the control group which was taught using the conventional method in the writing test in favor of the experimental group which was taught using the Articulate Storyline software. This result could be attributed to the fact that the articulate storyline software allows the learner to move between its topics easily and allows him to change its presentation style and make any notes on it, which contributes to developing the student’s writing skills. This style also contains effects that increase students' concentration and attract their attention during the lesson. It also contains a huge amount of information related to the subject of the lesson, which requires the learner to follow up, write down, and verify it.

Notably, this learning also takes place individually, which enables the learner to progress between the slides and scenes of the lesson on his own according to her abilities and desire and provides her with feedback about each stage and step in the lesson. This result could also be attributed to the fact that the articulate storyline software is based on a set of foundations that suit the educational and psychological characteristics of the learners. Articulate storyline is based on important educational standards, such as presenting educational objectives, research instruments, a list of guidance and advice, teaching-based incentives and suspense methods, and technical standards represented by the ease of articulate storyline software, the good design of the software’s pages, the freedom to choose sounds and graphics appropriate to the educational situation, and video clips, both in terms of clarity and design.

Moreover, the results showed statistically significant differences between the means of the scores of the second experimental group which was taught using the Google Classroom application, and the control group which was taught using the conventional method in the writing test in favor of the experimental group which was taught using the Google Classroom application. This result could be attributed to what distinguishes Google Classroom sites in terms of the ability to divide the study material provided on the site into its parts. They also allow the learner to compare the alternatives available to her by sharing with their colleagues and using mail, chat, documents, or the social network, and comparing them to each other.

Furthermore, integrating collaborative tasks using Google applications contributes to developing the level of students’ writing skills. Google Classroom sites also provide the opportunity to organize information and make it more useful, as Google Docs provide a free storage repository that enables teachers and students to refer to and exchange information in organizing knowledge related to the participatory task. Also, the teacher’s follow-up of the participatory task within the application enables each student to recognize what is correct from what is incorrect after the teacher’s modification, in addition to the presence of reinforcement through Google Mail and other applications, and the diversity of the continuous assessment through live Google Chat discussions, and Google Forms. The teacher's guidance of the student

when performing collaborative tasks contributed to the superiority of the experimental group which was taught using Google Cloud sites over the conventional method .

Additionally, the results also indicated statistically significant differences between the mean scores of the first experimental group which was taught using the Articulate Storyline software, and the mean scores of the second experimental group which was taught using the Google Classroom application in the writing test in favor of the experimental group which was taught using the Articulate Storyline software. This result could be attributed to the fact that articulate storyline is presented through a computer screen supported by some enhancements that help attract students' attention and focus, including audio, images, and video, as it could be published via web pages. It could be obtained directly by accessing its link if available or purchasing it from the publisher. It was an interactive software because it interacts with the students and responds to their commands, such as moving from one slide to another, scanning and modifying answers, or telling the learner that the answer is correct or wrong. It could also be attributed to the fact that the learning environment according to this style was considered one of the environments that influence the learning process, which works to stimulate learning motivation among students, attract their attention, raise the level of concentration during the learning process, develop their inclinations towards learning, and form positive impressions of the teaching-based process.

Recommendations

Given the aforementioned results and discussions, the current research study recommends encouraging tenth-grade English language teachers to use strategies of Articulate Storyline and Google Classroom due to their clear impact on developing writing. Another key recommendation is to conduct studies like the current study on other education-based stages and other variables, such as comprehension skills and conversation skills.

References

- Abu Al-Wafa, Manal. (2011). The problems faced by the teacher and their possible effects. Al-Bayan Magazine, Retrieved on ;4/1/2023 [http: www.albayan.ae](http://www.albayan.ae)
- Abu Hamda, Saada Ahmed Suleiman (2012). The effect of active learning on developing reading, writing, and imagination skills among third-grade students in Jordan. Doctoral thesis, International Islamic Sciences University, Jordan
- Abu Hatab, Fouad and Sadiq, Amal. (1991). Educational Psychology, Anglo-Egyptian Library, Cairo, Egypt
- Al-Abdullah, M.& Al-Husri, A. (2022). The effectiveness of educational software designed according to the Articulate Storyline program in the achievement of third-grade students in mathematics. Damascus University Journal of Educational and Psychological Sciences, 38(3), 775-801.
- Al-Alimat, Muhammad Muqbil (2016). The effectiveness of the Google Classroom program on acquiring biological scientific concepts in the blood unit among tenth grade students in the Negev District in Palestine 84. Journal of Educational and Psychological Sciences, 24 (4): 144-16
- Al-Amour, Y. (2016). The effectiveness of the Google Classroom program on the acquisition of biological scientific concepts in the unit of blood among tenth-grade students in the Negev District in Palestine 48. Journal of the Islamic University for Educational and Psychological Studies, 24(4), 144-164.
- Al-Awasa, Doaa (2016). The effect of designing interactive e-learning content using the Articulate Storyline program on developing reading skills among kindergarten

- students in schools in the Southern Mazar District. Unpublished master's thesis, College of Graduate Studies, Mu'tah University, Jordan, Karak.
- Al-Ayasrah, Walid (2011). Teaching, learning, and educational psychology (1st edition), Amman: Dar Osama for Publishing and Distribution
- Al-Bahnasawy, Ahmed (2019). Developing skills in producing electronic lessons and tests. Retrieved in :25\1\2024 from [https:// learningstoryline. blogspot .com/p/ articulate-storyline-articulate. html](https://learningstoryline.blogspot.com/p/articulate-storyline-articulate.html)
- Al-Brahmma, Akram and Hamza, Muhammad (2022). Difficulties in learning a skill in the English language for the first three grades from the point of view of female teachers in the capital city of Amman. *Journal of Social Studies*, 28(4), 1-26.
- Al-Dulaimi, Abdul Razzaq (2019). The use of digital communication technology in education from the point of view of teachers in Jordanian universities. *Arab Journal of Child Media and Culture*, 2(6)
- Al-Fayez, I. (2021). A proposed educational software based on the e-learning management system, Google Classroom, for teaching and evaluating the life sciences subject for the ninth grade in university district schools, and its impact on motivation towards learning, developing scientific concepts, and achievement. [Unpublished Doctoral Dissertation Abstracts]. Faculty of Graduate Studies, Mu'tah University, Jordan, Karak.
- Al-Hamadi, Anoud (2022). The effectiveness of applying artificial intelligence in developing English reading skills and the level of motivation among basic stage students. *Arab Journal of Specific Education*, (29), 185-210.
- Al-Harbi, Mashael (2017). The effectiveness of electronic puzzles in developing the acquisition and retention of English vocabulary for second-grade female students in the city of Buraidah. *Journal of Scientific Research in Education*, 18 (9), 93-212
- Al-Khataybeh, M. & AlDarawsheh, S.(2023)The effectiveness of using augmented reality technology on developing tenth grade students' English language skills in Jordan.*Migration Letters* ;20(59) Pp.549-562
- Al-Masry, N & Al-Heila, M. (2023). The effect of educational software based on training, practice, and gamification modes in developing the English language skills of third-grade students in Giza District. *Journal of the Association of Arab Universities for Research in Higher Education*, 43(2), 1-31.
- Al-Mekhlafi, Muhammad (2019). The impact of language games and story-telling strategies on developing writing skills among sixth-grade students in the Republic of Yemen. *Al-Andalus Journal of Humanities and Social Sciences*, (22), 36-80.
- Al-Mohamed, Ahmed (2018). Articulate Story Line program for designing interactive lessons. Retrieved in: 2\2\2024 from www.neweduc.com
- Al-Obaidi, Nada (2021). The impact of using Google applications on developing reading and writing skills and acquiring grammatical concepts among learners of the native Arabic language in the middle school in Sweden. *Scientific Journal of Educational Sciences and Mental Health*, 3(2), 135-170.
- Al-Orimi, Khadija (2021). Difficulties facing students in learning English language skills: A descriptive survey study in light of the results of research and studies. *Arab Journal of Humanities and Social Sciences*, 9(3), 1-44.
- Al-Owaisat, Yazan (2022). The impact of teaching using blended learning and the Google Classroom platform on developing reading and writing skills in the Arabic language among third-grade students in the Karak District Directorate. [Unpublished doctoral dissertation], Faculty of Graduate Studies, Mu'tah University, Jordan, Karak.
- Al-Rai, N .(2018). The English language exam whose results are announced is not national. Retrieved on: 2/3/2024 from [https://alrai. com/ article/10452643](https://alrai.com/article/10452643)

- Al-Rikabat, Fatima (2022). Reasons for the weakness of upper basic stage students in English writing skills in schools in the Southern Badia from the point of view of English language teachers. *Scientific Journal*, 38(11), 167-188
- Al-Sahrawi, Mounir (2018). Articulate Storyline program for designing interactive lessons Retrieved in :15/12/2023 from <https://smounir48techniques.blogspot.com/2018/06/articulate-storyline.html>,
- Al-Shaer, Maha (2023). The impact of using Google Classroom on the productive skills of English as a foreign language learner in the eleventh grade in Jordan and their attitudes towards it. Unpublished master's thesis, College of Education, Al al-Bayt University, Jordan, Mafraq.
- Al-Sharif, Fahd Majed (2019). The effectiveness of using the educational drama strategy in developing English speaking skills among first-year intermediate students: Umm Al-Qura University for Psychoeducational Sciences
- Alyan, Ayman (2008). The effect of guided imagination for teaching expression on the formation of written artistic images and the development of creative thinking skills among basic stage students in Jordan. [Unpublished doctoral dissertation], Amman Arab University for Postgraduate Studies, Amman, Jordan
- Arifah, A.(2014) . Study on the Use of Technology in ELT Classroom from Teacher Perspective .Unpublished M.A.Thesis , Dpatment of English and Humanities ,BRACUniversity , Dhaka,Bangladesh.
- Colin Hegarty, (2015). Seven ways technology can benefit schools, www.tes.com Edited
- Collins , Bryan .(2023). What Is Functional Writing? . Retrieved in: 3\10\2023 from <https://becomeawritertoday.com/what-is-functional-writing/>
- Damois, Jason .(2015). Awesome storyline HTML5 examples . Retrieved in 5 \3\2024nfrom <https://community.articulate.com/discussions/building-better-courses/awesome-storyline-html5-examples>
- Dixon, F . ;Cassady, J .;Cross, T.& William ,D. (2005). Effects of technology on critical thinking and easy writing mong gifted adolescents the journal of secondary , (No77)
- Google D, (2017). Google Education. Retrieved in: 9\11\2023from Google for Education: <https://edu.google.com/>
- Iman, Muhammad Fadel. (2013), Architectural Story Line Program. *E-Learning Magazine*, Issue (12)
- Jaballah, Ali, Makkawi, Sayed, and Abdel-Bari, Maher (2011). Teaching reading and writing, its foundations and educational procedures. Amman: Dar Al Masirah for Publishing and Distribution.
- Javed, M. Juan, W. & Nazli, S.(2013). A Study of Students' Assessment in Writing Skills of the English Language. *International Journal of Instruction*. Vol.6 (2), available on: www.e-iji.net.
- Jing, W. (2006). Integrating skills for teaching EFL- Activity design for the communicative classroom. *Sino-US English Teaching*, 3(12):416-428.
- Khalif, Zuhair (2015). Learning the Artculite Storyline 2 program for building interactive electronic content, Indiana University - United States of America.
- Lababna, Mahmoud (2020). Employing the Storyline program in teaching geography for the tenth grade to develop cognitive flexibility and environmental self-awareness among students. Unpublished doctoral dissertation, Faculty of Education, Yarmouk University, Jordan, Irbid.
- Liz, Hamp-Lyons, and Ben Heasley .(2006). Study Writing. Cambridge University Press, Retrieved in: 9/11/2023 from <https://journal.umgo.ac.id/index.php/British/article/view/473>

- Marji, Fahd Mithqal Theeb (2007). The effect of a program to teach written expression in developing dialectical writing and critical thinking skills among female secondary school students in Jordan. [Unpublished doctoral dissertation], Amman Arab University for Postgraduate Studies, Amman, Jordan.
- Muhammad, Magdy and Abdel Raheem Amira (2021). The effect of using WhatsApp and Classroom on the level of teaching performance for implementing the main and closing parts of a physical education lesson and the cognitive achievement of female students at the Faculty of Physical Education in Sadat City. *Journal of Theories and Applications of Physical Education and Sports Sciences*, 35 (1), 86-109.
- Mumtahana, A; Roesminingsih, V. & Suyanto, T. (2020). Development of Learning Content in Computer Based Media with Articulate Storyline to Improve Civics Learning Outcomes in Third Grade Elementary School Students. *International Journal of Innovative Science and Research Technology*, 5(2), 777-784.
- Nour El-Din, Muhammad (2022). The effect of using hybrid learning via the Google Classroom platform in developing English writing skills among middle school students. *Journal of the College of Education in Damietta*, (82), 87-120
- Pope , Rose (2023). *Creative Writing: Start Your Creative Writing Journey*. Retrieved in 3\10\2024 from <https://self-publishingschool.com/creative-writing/>
- Qasim, Muhammad (2022). What is Articulate Storyline 360 and what are its features?. Retrieved in: 12/15/2023 from <https://softyfile.com/articulate-storyline -360/>
- Ramadan, Ibrahim (2021). *Articulite Storyline Basics 3*. Retrieved in: 12/5/2023 from <https://maharatech.gov.eg/course /view. php? id=1435>
- Schmitz , Andy (2012) *Successful Writing* .Retrived in : 13\12\2023 From <http://creativecommons.org/licenses/by-nc-sa>
- Teodora, D. & Ioana, C, (2017). *I Am A Teacher In The Digital Era, What To Choose: Google. The 13th International Scientific Conference eLearning and Software for Education Bucharest April 27-28, 2017*, Retrieved in \10\11 from 2023 <http://proceedings.elseconference.eu/index.php?r=site/index&year=2017>
- Topping, K. (2001). *Paired Collaborative Writing*. *Research in EducaOon*, 67(1)11 19
- Zaki, Asmaa (2021). The effectiveness of the Artculite Story Line program for designing interactive lessons to provide fourth-year students with the skills of embroidering the itamine stitch executed on metal wire (an environmental material) for the graduation project subject. *Journal of Research in the Fields of Specific Education*, 7
- Zeeshan ,N .(2015). *The Importance of the English Language in Today's World* . www.owlcation.com ,Retrieved 4\4\2023