The Effect of using a Course Based on Digital Story Strategies on Developing Prep-Stage Pupils' English Descriptive Writing

Rahma M. F. Ali[1], Dr. Dalia I. Yehia[2], Dr. Asmaa G. Geith[3]

[1]*An EFL teacher at Al-Malik Fahd Public school, Egypt*

[2]*Lecturer of Curriculum and instruction (EFL), Faculty of Education- Ain Shams University*

[3]*Professor of Curriculum and instruction (EFL), Faculty of Education- Ain Shams University*

Abstract

The current study sought to determine how digital story strategies can develop first-year pupils' English descriptive writing. Twenty-seven first-year pupils at Al-Malik Fahd Public School participated in this study. The suggested course was based on digital story strategies; digital photo stories, and e-mind mapping. To practise the study's interactive activities, participants used technological platforms, such as Boom Writer and Storyboard, to describe themselves, people, and events in authentic situations. These exercises helped pupils share meaning through English writing activities and form their own opinions. The instrument of the quasi-experimental one-group study was a pre-posttest designed to measure participants' descriptive writing in the pre-post treatment. Also, the researchers utilized a writing checklist as a pupils' self-assessment instrument to ensure participants understood their descriptive writing tasks by measuring the three selected components of descriptive writing; supporting details, organization, and mechanics & sentence structure. Additionally, a scoring rubric was constructed to evaluate pupils' writing before and after treatment. The study findings showed that using digital story strategies developed the English descriptive writing components of first-year preparatory stage pupils.

Keywords: Digital story strategies, descriptive writing, E-mind mapping, and Digital Photo Story.

Introduction

Due to the demands of the 21st century, educational technology is a significant development globally and locally. Additionally, integrating educational technology into teaching and learning has significantly impacted educational institutions' instructional techniques, transformed how pupils are taught, and positively affected language teaching strategies. Instead of passively acquiring knowledge from a teacher or textbook, pupils who use technology in the classroom are in an active and interactive setting. As a result, learners gained proficiency in twenty-first-century competencies.

Writing is a tool for developing 21st-century competencies needed for success in the workplace. The key competencies of the twenty-first century include communication, collaboration, critical thinking, complex problem-solving, and creativity (Lai and Huang, 2014). Turpie (2012) elaborates that young people are engaged in new technology and digital media from the day they are born.

As pupils need technology, they also need writing that helps them convey their ideas, feelings, and opinions. El-quardahj (2019) explains that descriptive writing is a literary device in which the student employs literary means like details to use their words to paint an image. To help pupils become better writers and to make their writing more interesting to readers, they will also use it to produce sensory elements, such as seeing, hearing, smelling, feeling, and tasting.

The researchers searched for digital strategies that help learners develop their descriptive writing. The Educational Digital Photo Story was shown as a type of digital story by Shehata (2014) to clarify that the use of text, sound, photos, graphics, and videos for educational purposes allows people to present an event, a person, or a location through the use of digital photo stories.

There are practical strategies for demonstrating the impact of digital learning on information access and student engagement. As a result, the researchers relied on digital story strategies, such as digital photo stories and e-mind mapping, to enhance first-year preparatory pupils' stage descriptive writing because of their adaptation to the intended learning outcomes of the writing at this stage. The encoded intended learning outcomes are supporting details, mechanics & sentence structure, and organization. Moreover, digital story strategies encoded in the prep stage writing ILOs were more beneficial for pupils' needs.

Context of the problem

According to the first researcher's observation of preparatory school pupils' descriptive writing in the assignments and tests, it was found that asking pupils to put their ideas into words and write them in paragraphs was a very challenging task. Additionally, EFL pupils suffer from poor appropriate English vocabulary expressions, poor sentence construction, figures of speech, spelling, and cultural awareness.

The researchers discovered that numerous pupils had poor English language descriptive writing levels that were a result of their tests. The researchers also noticed poor writing and shallow ideas. So, she decided not to teach them how to write but to realize the objectives of "descriptive writing". Instead of direct ways of learning, implicit digital strategies represent the alternatives.

To get an insight into the level of pupils, the first researcher interviewed five instructors in the preparatory stage. These instructors expressed concerns about the writing of descriptive paragraphs by their pupils and provided examples of how they focus on the writing assignment to adhere to mechanics standards. They have learned to write as a product or as a process with steps. However, they did not regard it as a genre. The researchers decided to use writing as a

genre that gives them the idea of writing for personal reasons, such as descriptive writing, instead of writing just to write correctly in the final exam.

In the interviews, the instructors mentioned that schools have different reasons for this problem, such as lack of resources, poor teacher-student ratio, ill-equipped classes, exhausted teachers, less time for writing activities, and unauthentic contexts.

Finally, pupils do not view writing as an exciting endeavor because they are passive information consumers with a hazy understanding of how the information presented in the textbook relates to the real world. It could be due to the traditional methods of teaching. Hence, interviewees need more guidance and strategies to enhance their English writing. Moreover, the researchers feel the pupils' desire to enjoy learning in a digital context, representing a step towards achieving more advanced intended learning outcomes.

Statement of the problem

First-year pupils in the preparatory stage are almost always poor at descriptive writing. This poor level may be due to the regular teaching methods that English teachers often use and the shortage of student engagement. The researchers adopted digital story strategies to develop the first preparatory pupils' English descriptive writing.

Research questions

The current study has attempted to research the effect of digital story strategies to enhance first-year of preparatory stage pupils' English descriptive writing by answering the following central question: *What is the effect of digital story strategies on developing first preparatory English descriptive writing pupils?*

To answer the previous central question, the researchers answered the following sub-questions.

1. What are the levels of English descriptive writing in the lower intermediate stage?

2. What are the descriptive writing components of the first preparatory pupils?

3. What are the digital story strategies advantages that develop English descriptive writing?

4. What are the digital story strategies' challenges that impede English descriptive writing development?

5. What are the treatment preparations to develop English descriptive writing?

6. What are the English descriptive writing levels in the pre-and post-treatment?

Hypotheses

The current study tried to investigate the following hypotheses:

1. There are statistically significant differences between the mean scores obtained from participants in the pre-test and those of the post-test in the area of descriptive writing as a whole in favor of the post-test.

2. There are statistically significant differences between the mean scores obtained from participants in the pre-test and those of the post-test in descriptive writing as subcomponents favor the post-test.

Significance of the study

The current study is helpful for pupils, teachers, curriculum designers, and researchers.

1. *Pupils:* This study tackles a significant problem facing first- year-preparatory pupils in descriptive writing. In addition, it identifies and encourages the use of technological means in learning.

2. *Teachers:* The study draws the teachers' attention to using digital story strategies to develop their pupils' EFL descriptive writing.

3. *Curriculum designers:* The research helps curriculum designers include activities based on digital story strategies to develop pupils' and teachers' abilities.

4. *Researchers:* Researchers are provided with guidelines for further studies.

Definition of terms

Descriptive Writing

Pourdana and Asghari (2021) defined *descriptive Writing* as a genre that gives detailed properties to an individual, place, or occasion, and ought to be portrayed so that the reader can picture the subject and enter the writer's experience.

In the current study, descriptive writing is defined as an idea-creation tool utilized to digitally inform or instruct specific ideas by describing people, gadgets, and events in authentic situations that related to first preparatory pupils.

Digital Story Strategies

In the current study, "digital story strategies" is the independent variable that contains digital photo story strategy and e-mind mapping strategy.

- *E- Mind Mapping strategy:*

Al-Zahrany and Al-Zahrany (2019) defined E-Mind Mapping as the organization of information in formats or graphics showing the relationships between them.

- *Digital Photo Story strategy*

Conn, J. (2015) defined a digital photo story strategy as a collection of drawings, illustrations, photographs, text, or other images in a digital slideshow that allows the maker to add music and/or record an audible voice-over of the slides.

The current study defined digital story strategies as complementary strategies, which are the E-mind mapping and the digital photo story, depending on technological means to

master descriptive writing components and create descriptive paragraphs in different digital stories by the first-preparatory stage pupils to develop English descriptive writing.

Review of literature and related studies

Descriptive writing

Shhaat (2015) showed that the issue with English writing for second-year preparatory pupils is the struggle to articulate their thoughts in writing using suitable mechanics and real-world situations. Focusing on grammatical form and lack of genre causes writing issues (5–6).

Kaoud (2015) presented the Product Approach, the Process Approach, and the Genre Approach as the three fundamental writing approaches for EFL pupils. He said that the Product Approach and the Process Approach, but not the Genre Approach, are the two most widely used approaches for teaching writing to non-native English speakers. The Product Approach focuses on the written product; grammar, sentence structure, and writing mechanics like spelling and punctuation are all stressed. The Process Approach to Writing, on the other hand, enables teachers to concentrate on the numerous steps in the writing process. It allows pupils to play around with their language in a way that helps them build confidence and fluency before they get preoccupied with the final output. The genre approach, beneficial for EFL writing, is often neglected by EFL teachers.

According to Burns and Siegel (2018:193), teaching writing under the umbrella of a genre approach prepares pupils for life in a communicative society and develops their English intellectual capacity. Because of these purposes, they must write in various genres and for various audiences (i.e., expository, descriptive, interactive, narrative, and persuasive). Carter (2015) agreed with this viewpoint. High-quality writing passes on the affection that creates a resonance with readers. Such affection requires writers to feel in the written world emotionally.

Thus, the genre approach had been chosen to develop descriptive writing for first-year pupils who had taken the process and product approach in detail but did not deepen their learning of writing as a genre approach. In the current study, participants were teenagers (lower intermediate stage) who tried to identify themselves and describe their feelings and thoughts.

A culturally relevant story that might inspire students to write is an excellent place to start for EFL writing instructors, as is giving the numerous explicit and systematic minilessons on English writing strategies that help students revise and edit their descriptive writing (Hayik, 2017).

Chen et al. (2021) used augmented reality as a technological technique to create descriptive writing, which requires the multimodality of current technology to help writers emerge and form a greater connection to places and time, as well as model learners' self-concept.

A notable result is that the students might have exerted more effort when writing with augmented reality to solve the problem than when they were provided with a picture prompt. The author asserted that using technologies needed more effort, but it enhanced descriptive writing more than without it (Allagui, 2019).

Datchuk (2015) elaborated that the results of his study suggest that the multi-component intervention with paragraph instruction is a promising approach for improving the written expression of students with writing difficulties. The intervention promoted the accurate and fluent performance of simple sentence construction and word sequences and the practised application of these components to descriptive paragraphs.

In descriptive Writing, the author introduces the topic within the topic sentence and then describes its details through the supporting sentences. A topic sentence frequently contains

"enumeration," which notifies that pieces of information are being displayed within the supporting sentences to the readers. Characteristics, parts, aspects, layers, formats, propensities, practices, and aspects are the foremost regularly utilized enumerators within the descriptive genre of Writing (Pourdana & Asghari:2021).

According to previous studies, descriptive writing based on a genre approach is a method to transform the regular writing environment into an upbeat, interactive, authentic environment in which digital activities are accomplished through digital story strategies. Additionally, the participants are teenagers whose personalities are reshaped, and their ideologies are renamed and represented according to their experiences, prior knowledge, and ILOs of the stage.

Digital story strategies

Lingard and Watling (2021) claimed that a claim is called "Story, Not Study". The authors' central approach includes a transformation in considering what we do when writing. Rather than talking about composing, we focus on a story. Thus, Digital Story Strategies support the idea of transforming writing topics and components into infographic videoes and digital photo stories created by the teacher and the participants to enhance writing.

Digital story forms such as personal narratives, historical documentaries, and content area stories were displayed as the three types of digital stories by Handoko (2017). According to Handoko's study, there are different types of digital stories, but it is possible to categorize the significant types into three major groups. Firstly, personal narrative stories contain accounts of substantial incidents in one's life and are applied in digital storytelling. Secondly, historical documentaries-stories that examine dramatic events that help understand the past. The second type is more beneficial for the history discipline. Thirdly, content area stories are designed to

inform or instruct the viewer about particular topics. The first and second groups were deeply concerned, but not the third.

The researchers adopted the third type of digital story, the content area digital story, to inform and instruct using its strategies. However, her role is not only to use and present these strategies to pupils but also to help pupils use them to construct and inform the viewers' opinions on particular topics and practices.

The phrase "digital photo story" was used by Kucirkova (2018) to refer to stories that are technology-mediated and communicated and shown digitally using a few modalities, including images, texts, and sounds.

The researchers implemented the digital photo story by using technological means, such as the Microsoft Photo Story 3 program using a computer or laptop, viva video, and Video Show using cell phones, and the interactive platform "storyboard" by using lab tops or cellphones as a homework assignment, and classroom activities enabling pupils to create a paragraph in the form of a digital photo story.

Although the pupils faced some limitations with the mind mapping strategy by using paper and pen as the final product, they found it very convenient to use software, such as XMind and Mimind, on their mobile phones or computers. Al-Zahrany and Al-Zahrany (2019) preferred an E-mind mapping strategy rather than a mind mapping strategy by the pen that causes intervention.

The Mind-Mapping strategy has been looked at by Yunus and Chien (2016) concerning its effectiveness in improving the composing abilities of Malaysian pre-university understudies. The results of their investigation appear that understudies react positively toward mind-mapping strategies to assist them in improving their writing abilities. Therefore, their

investigation encourages the researchers' choice to apply this strategy in enhancing Writing, but in another stage, that is the low intermediate stage.

Burns (2018) authentic assessments are essential for pupils to develop 21st-century competencies. From the researcher's perspective, rather than simply taking after textbooks that contain works out of practice, isolated writing prompts, and language conventions, pupils should write significant pieces related to their experiences to achieve authenticity in their writings and their assessments that show a student's understanding of different descriptive writing components.

The current researchers assessed the developed descriptive writing through the digital story strategies' original foundations, which are visual, content, and knowledge sections. In the visual section, pupils experienced self-assessment and peer assessment to evaluate images, colors, transitions, animation, music, text, and their suitability for the contents. The content section, in which pupils use specific topics to develop descriptive writing, was assessed by participants as a peer assessment by assessing each other's descriptive writing. In the knowledge section, the researchers assessed pupils' descriptive writings using the scoring rubric that was elaborated for the participants and was utilized by the teacher.

Method

The Study Design

The one-group pretest-posttest quasi-experimental design was used in the present study. The treatment group was exposed to pre-post collection methods (pre-post writing test and the scoring rubric).

Participants:

Twenty-five first preparatory female pupils were randomly nominated at Al-Malik Fahd public school, Nasr City, and their ages ranged from 12 to 13 years old.

Duration of the Treatment

The experiment lasted for a month, three sessions a week (120 minutes a session), from 30th May 2022 to 7th July 2022. Thus, the experiment included 16 sessions (32 hours).

Instruments of the study

Aiming to investigate the effect of digital story strategies on enhancing preparatory first preparatory pupils' descriptive writing, the instruments were designed and built as follows.

Writing checklist

The researchers used the writing checklist to give participants a reference for editing and reviewing their paragraphs. In addition, it is used for preparing the test and the treatment. The pupils used the checklist as an example of what was to be accomplished through descriptive writing to ensure they understood it. Finally, the researchers review the checklists and provides feedback to all of the pupils in general.

Reviewing the literature and related studies, the researchers designed rubrics, which consisted of the writing components edited by the supervisor before choosing the final components of descriptive writing. The descriptive writing checklist had three elements on it. The three components of the descriptive writing checklist are supporting details, organization, mechanics, and sentence structure. In the supporting details, pupils support the topic sentence, develop their coherence, make their writing relevant to the assigned writing task, and use transition words with their descriptive writing. Furthermore, they respond to two statements; firstly, supporting the topic idea with relevant details that allow the reader to picture, feel, hear

and imagine things described; secondly, supporting details had appropriate transition words to show coherent descriptive writing.

In the mechanics and sentence structure, pupils develop capitalization, punctuation, and spelling. Also, they use various and appropriate grammatical sentences. Moreover, pupils replied in two sentences in the checklist; the first sentence states that punctuation and capitalization rules were applied correctly in descriptive writing. The second sentence said that appropriate and correct sentence structures were used in descriptive paragraphs.

In the organization, pupils use correct paragraph structure and develop different ideas. Likewise, understudies reacted to two utterances. In the first one, pupils ensure that their descriptive paragraph is divided into an introduction, body, and conclusion. In the second one, descriptive writing was in the correct structure. All participants had to respond to the statements and justify their responses from their descriptive writings or comments to ensure their understanding.

Pre-post descriptive writing test

Purpose of the Test

The test measured participants' descriptive writing levels in the pre-and post-treatment.

Description of the Test items

The test was developed after reviewing prior studies on pupils' descriptive writing. The test contains specific instructions, and the test objectives are divided into two parts. The offline part includes three questions; the first consists of five authentic questions about technology. The second question has two pictures of the same place and asks students to describe the two pictures. The third question includes five pictures of a famous story and asks pupils to arrange the pictures in the correct order, write the story and use it in their daily lives.

On the other hand, the online part consists of three questions. The first question asked students to create a mindmap using XMind, the second asked them to create a digital photo story using Microsoft Photo Story3, and the third asked them to create a storyboard using Storyboard That Website. Certain specifications were created to suit the participants' needs and descriptive writing. The items on the test are of the paragraph question type.

Validity of the test: Internal validity Dimensions Test

To ensure the internal validity of the major components and subcomponents of the English test, the correlation coefficients between the degree of each sub-component and the overall degree of the test are calculated. Table 1 shows the correlation coefficient:

Table 1

The correlation coefficient between the score of each descriptive writing and the total test scores

Descriptive writing components	Correlation
Supporting Details	0.69**
Mechanics& sentence structure	0.68**
Organization	0.70**

* * Significant at 0.01, where N = 20, R ≥ 0.55.

Table (1) shows that all test components are statistically correlated to the overall degree to which they belong, indicating the internal validity of the components.

Reliability of the Test: Alpha-Cronbach coefficient method

The Alpha Cronbach Test Coefficient was calculated at 0.84, an acceptable and high value. Generally, this value refers to the accuracy and stability of the test as a means of measurement; therefore, the test is reliable.

The researchers used a rubric with three scoring points (Excellent, intermediate, and poor) to assess participants' descriptive writing in the pre-post descriptive writing test. The rubric was utilized to determine the participants' descriptive writing as reflected by the pre-descriptive writing test. Then, it was used to determine the effect of digital story strategies on enhancing participants' descriptive writing at the end of the experiment. This rubric was elaborated for pupils in the orientation session and each session.

The suggested course based on digital story strategies for developing first preparatory descriptive writing

Overview

This study aimed to see if digital story strategies could help first-year preparatory pupils develop their English descriptive writing. The researchers utilized a quasi-experimental design to show that the independent variable (Digital Story Strategies) is related to the dependent variable (English Descriptive Writing). After analyzing the theoretical background and previous studies concerning the effect of digital story strategies, she used Digital Story Strategies; e-mind mapping strategy, and digital photo story strategy to develop descriptive writing through the three components of writing; supporting details, organization, and mechanics& sentence structure. The rubric of the current study designed for measuring the students' progress includes the three components used by the teacher. The course included a checklist used by the participants in each session to make a self-assessment. The course is accomplished through active and authentic activities that cannot occur in the regular classroom environment.

Aim of the Course

This course aims to develop descriptive writing for first preparatory pupils through digital story strategies.

The Objectives of the Course

By the end of the course, based on digital story strategies, pupils would be able to:

1. Be aware of the importance of sharing meaning and a deep understanding of the main topic idea.

2. Write supporting details in coherence, relevance to the assigned writing tasks, transition words, and descriptive writing.

3. Use mechanics and sentence structure; capitalization, punctuation, spelling, and appropriate grammatical sentences; and sentence types variation.

4. Organize their writings in terms of; correct paragraph structure and different ideas of paragraphs.

5. Solve appropriate problems in writing that reflect their opinions.

Digital story strategies:

1. Digital photo story strategy:

Pupils used it to create digital photo stories as digital paragraphs by combining authentic photos, music, and backgrounds. Participants attached sentences under each photo to write a digital paragraph.

The technological means of the second strategy:

1. Microsoft photo story 3

2. Viva video

3. Video show

E-mind mapping strategy: E- mind mapping is used for creating digital paragraphs, not a taking notes strategy.

The technological means of the third strategy:

1. Xmind
2. Mimind

platforms

1. *Boom Writer:* In Boom Writer, the researchers create virtual classrooms with various advantages: uploading sessions and creating tasks. Participants utilized it to create digital photo stories.
2. *Storyboard platform:* It is a platform used by the teacher to create and upload storyboards. The researchers create storyboards as exercises for participants.

Learning Activities

Activity 1: The first researcher and participants used the XMind to create a digital mind map written about the previous weekend by sharing the screen for open discussion. The e-mind mapping strategy is not a note-taking strategy but a digital writing paragraph with separated sentences. The title is in the center. Each sentence is written on the topic button. participants support each sentence with relevant supporting sentences that have been put in the sub-topic buttons to organize the paragraph into coherent writing. Students add pictures, colors, backgrounds, and emojis to their digital mind maps.

Activity 2: As a collaborative team, students are asked to write a short story. Each student has a role (presenter, timekeeper, editor) and writes it in the interactive platform boom

writer to turn it into a digital photo story strategy by uploading pictures and making a story with a cover holding their names.

Activity 3: Participants are asked to create a digital photo story using Microsoft photo story 3 to describe a person in the family in sensory details with authentic photos.

Activity 4: Participants were asked to cook their favorite recipe and take photos while cooking, then creates a digital photo story using the viva video program about their favorite recipe and write a paragraph about cooking the favorite recipe.

Learning Strategies:

1- *Discussion:* The teacher adopted it by raising open-ended questions and exchanging ideas between the first researcher and the pupils.

2- *Brainstorming:* It is adapted to let all pupils participate and collect information on the topic by using their guessing or prior knowledge, then renaming and rebuilding their knowledge.

3- *Sharing the Pen:* It is a strategy that allows the teacher and the pupils to apply an interactive environment through writing together. By taking turns writing the paragraph, students learn how the paragraph work. "Sharing a pen" can be done by writing on the digital whiteboard.

4- *Problem-Solving Strategy:* Pupils use this strategy in authentic situations with a story that includes the problem, and students should create a solution and complete the story.

Assessment:

Instruments were used to assess the pupils' writing levels. Furthermore, each response is ensured to be noted and interpreted. Various answers were brainstormed, and participants'

prior knowledge was linked with the course content. In addition, it is used to show their developed descriptive writing.

The engagement and interaction of the participants in this course activities are assessed by sharing ideas in discussion, brainstorming in creating the digital mind map through using the XMind, and creating a digital photo story using the Microsoft Photo Story 3 or the Viva Video. The Pen Sharing strategy on the digital whiteboard and voting on the best digital stories by participants.

This course's assessment is divided into three types; self-assessment, peer assessment, and teacher assessment. In the first type, the teacher analyzed the reflective writing checklist and asked them to assess their writing in each session as an assignment. In the second type, students are asked to upload their digital photo story strategy on the Whats App group and vote on the best digital photo story strategy to be the winner of each session. In the third type, the researchers assess participants through the session and asks each to give them personal feedback on their assignments. In addition, she recorded their responses in activities and assignments using the rubric in each session and the pre-post test. After presenting the study's application and its method, the results are presented in the following section.

Results and Discussion

The first hypothesis discussion

The first zero hypothesis states: "There are no statistically significant differences between the mean scores obtained by participants in the pre-test and those of the post-test in writing as a whole". To verify the validity of this hypothesis, a test was used for two associated samples (Paired Sample T-Test) to detect the difference between the pre-test and the post administrating of the English writing test.

The ETA square test has been used to calculate the effect size. It is stated (Izzat Abdul Hamid 2016, 273:284) that the effect size is calculated in the case of using a t-test for either two independent samples or associated with the mathematical formula: after treatment.

Effet size ($\eta 2$) $= t2 / (t2 + df)$ As

- df = degrees of freedom
- T = calculated T value

($\eta 2$) shall be interpreted as follows:

- If: ($\eta 2$) < 0,010 Fidel on the size of the weak effect.
- If: $0,010 \leq (\eta 2) < 0,059$ Fidel on small impact size.
- If: $0,059 \leq (\eta 2) < 0,138$ Fidel on average effect size.
- If: $0,138 \leq (\eta 2) < 0,232$ Fidel on large impact size.
- If: $0,232 \geq$

According to table (2), the effect size of the digital story strategies was tested using the Eta Squared formula ($\eta 2$). The effect size (Eta- squared) value (.85) that is greater than (.232) of the proposed model is highly effective. Therefore, it can be inferred that the digital story strategies significantly enhanced the first preparatory students' writing.

Table 2

T-test results for the significant differences between the mean scores of the participants in the pre and the post-writing test as a whole degree, where (n = 27), (freedom scores = 26).

	Mean		Std. Deviation		T-test	Sig.	Effect size ($\eta 2$)
	Pre	post	Pre	Post	value		
writing as a whole	7.94	47.48	18.62	4.13	12.024	0.000	0.85

Table (2) shows the mean grades of the research group pupils in the pre-test English descriptive writing test to a greater degree than in the post-test. This result indicates that the level of students in descriptive writing in English as a whole increased after teaching the designed course using digital story strategies, and the standard deviation of the grades of the research group pupils in the post-test as a whole degree than pre-test administration. Thus, the level of the participants in English writing became convergent after treatment.

Analysis of the collected data using the "t-test" for paired samples showed that the obtained t-value (12.024) was significant at a 0.01 level. Thus, the first hypothesis is accepted. According to the indicative level Sig, English descriptive writing as a whole is a whole degree lower than (0.01), which indicates a difference between the pre-test and post-test as a whole at an indicative level (0.01) in favor of a higher mean post-test. Figure(1) presents the data analysis summary obtained from comparing the pre-test and post-test participants. It presents the difference between the average scores of pupils in the study group in the pre-test and post-test of the English descriptive writing test as a whole:

Figure 1

The difference between the mean scores of participants in the pre and post-descriptive writing test as a whole degree.
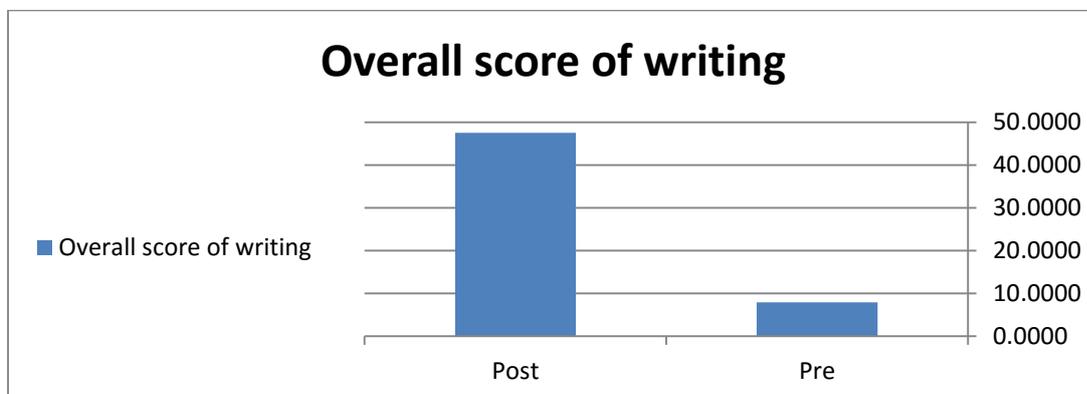
The pre-test findings showed poor descriptive writing in several components, including supporting details, organization mechanics, and sentence structure. Digital story strategies empowered pupils with more individualized and engaging activities for developing their descriptive writing, solving their problems through individual tests, and providing every participant with the opportunity to improve descriptive writing shortages collaboratively.

The second hypothesis discussion

Table (3) shows that the means of the scores of the research group pupils in the post-test as subcomponents is more significant than in the pre-test, which indicates that the level of pupils in English descriptive writing in all subcomponents increased after teaching a course using digital story strategies. In addition, the standard deviation of the grades of research group pupils in the post-test of the English descriptive writing test as subcomponents is lower than in the pre-test, indicating that the level of study group pupils in all components of English descriptive writing became convergent after teaching using digital story strategies.

Table 3

T-test results for the significant differences between the mean scores of the participants in the pre-and post-descriptive writing test.

Descriptive writing components	Mean		Std. Deviation		T-test value	Sig.	Effect size (η^2)
	Pre	post	Pre	post			
Supporting Details	1.59	7.37	1.18	3.36	9.170	0.000	0.76
Mechanics& sentence structure	1.81	7.48	1.56	3.03	12.259	0.000	0.85
Organization	0.55	8.44	1.01	3.67	11.162	0.000	0.82

The effect size of supporting details is 76%, which shows an excellent logical sequence of details through cohesive devices that achieve unity in the paragraph. The mind-mapping strategy helped the researchers to accomplish this result. Honestly, it was tough for the researchers to convince participants to describe people or places as a strange idea, especially in helping them reflect on their lives to accomplish authenticity. The researchers faced this challenge by applying activities authentically to herself as an example. To take photos of themselves, their family members, and places to reflect and create authentic photo stories. It was challenging to convince them, but it gradually became an authentic activity.

The second component effect size (85%) is "mechanics and sentence structure". The researchers applied the course that depends on digital story strategies by using authentic context. Although the researchers faced difficulties in making pupils accept the treatment that depends on learner-based learning, their developed results in mechanics and sentence structure encouraged them to differentiate between teacher-centered learning and learner-centered learning in favor of the second one.

The third descriptive writing component is the organization, which had an (82%) effect size in the current study. As shown in figure 2, Malak did not know the organization as an essential component in developing descriptive writing.

After the treatment, pupils could divide the paragraph into the introduction, body, and conclusion. Each sentence was followed by its details and evidence. Most participants recognize the effect of organizing the paragraph. A practical introduction with a clear topic sentence and ending the paragraph with firm conclusions helped the reader understand the writer's point of view as shown in figure 3.

Figure 2

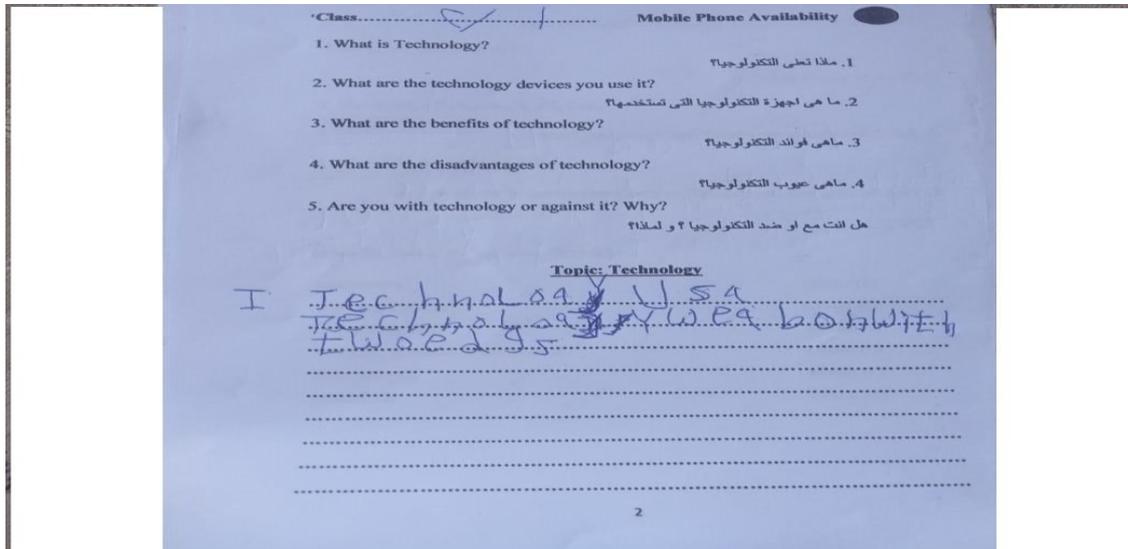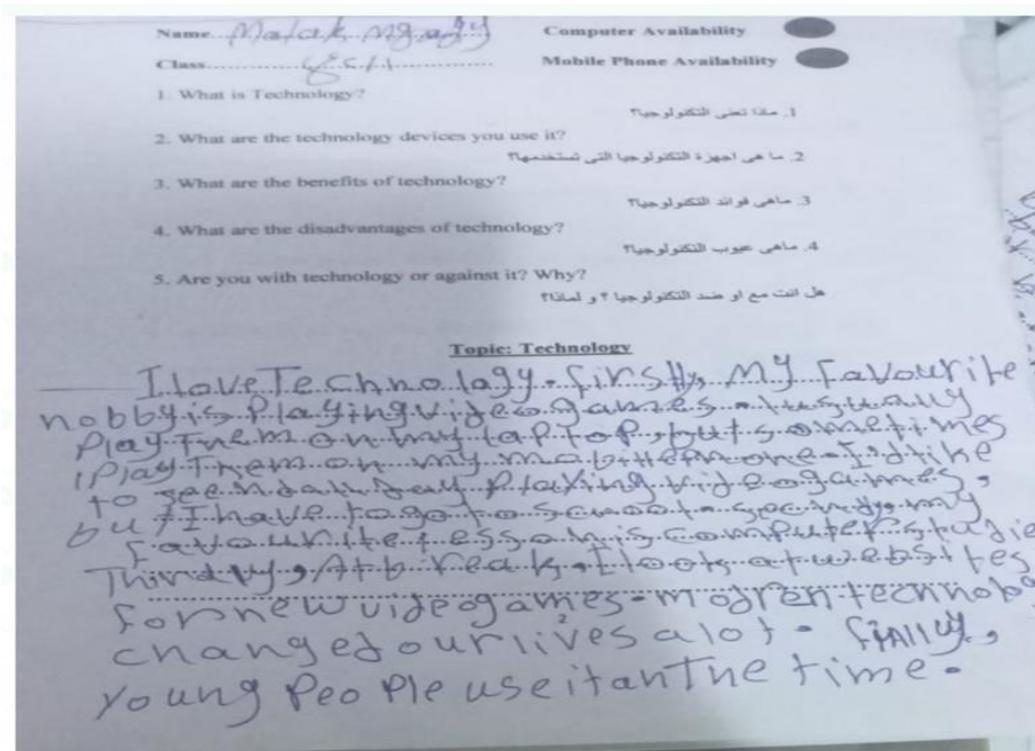*Descriptive writing sample before the treatment*

Figure 3

Descriptive writing sample after the treatment

If the comparison were made between Figure (2), which shows Malak's pre-test, and Figure (3), which shows her post-test after the treatment, it would be evident that she has to constantly think back on every element of the paragraph reflecting her ideas. Although there were some mistakes in her writing, there were significant differences in her descriptive writing, such as supporting details, using cohesive devices, organization, and reflecting on her authentic life. The purpose of the self-assessment writing checklist was to allow pupils to analyze their paragraphs and consider their strengths and faults. The teacher gave her feedback in each session according to the previous self-assessment that was applied using the reflective checklist and descriptive writing.

Descriptive writing was characterized by composing self-identity among pupils, such as lexical choices, sentence construction, descriptive techniques, and creativity (Chao et al., 2020).

Through this study, pupils described objects as an activity in which they were asked to invent a gadget that helps people and describe its features and usages, marketing it with a price and its benefits. The activities were not only describing objects but also describing identity, family members, and their houses. Within descriptive writing, pupils faced social problems and investigated their solutions. These descriptive writing activities were delivered through digital story strategies.

Bandura (1978) posited that social learning theory states that all individuals learn from each other using observation, modeling, and imitation. Bandura's model includes attention, memory, and motivation as factors in learning. Bandura believed in "reciprocal determinism," or when individuals jointly learn from each other.

The researchers applied the idea of Bandura by using Microsoft Photo Story 3. She divided pupils into collaborative teams who created digital photo stories related to their lives, including ethical values, to write descriptive paragraphs through digital photo stories that

displayed authenticity. They then observe, assess, and give feedback on each other's photo stories. Consequently, they developed their descriptive writing by describing their photos, feelings, identities, and problems.

Bandura (1978) conducted an experiment using the Bobo Doll, which children observed while an adult attacked (punching, kicking, hitting with a hammer, and shouting). They were then left in the room with the doll, and it was found that most children copied the behavior. (Fox, Bailenson, 2009) cope with Bandura (1978) in addition to finding extra responses when showing a computer character.

The researchers used digital story strategies to create photo stories and mind maps related to their identity and social circumstances collaboratively and individually. Although these direct activities helped them describe, they also helped them develop their writing components subconsciously. Consequently, the researchers used digital story strategies to facilitate the idea of learning "why to write?" Not "how to write?". The features of lower intermediate-stage pupils' descriptive writing affected the researchers' choice of convenient activities. The participants are teenagers whose personalities are reshaped and renamed according to their experiences, prior knowledge, and ILOs of the stage.

According to the study's findings, participants using digital story strategies to develop English descriptive writing substantially impacted attaining this goal and raised their level of descriptive writing. Quantitative data and qualitative analysis corroborated the study's positive findings and demonstrated improvements in the components required for descriptive writing, such as supporting details, organization, and mechanics & sentence structure.

Conclusion

Through examining the findings of this study's data, it was possible to draw conclusions on the effect of digital story strategies on pupils' descriptive writing development:

1. There are statistically significant differences between the mean scores obtained by participants in the pre-test and those of the post-test in the area of descriptive writing as a whole in favor of the post-test.

2. There are statistically significant differences between the mean scores obtained by participants in the pre-test and those of the post-test in the area of descriptive writing tests as subcomponents favor the post-test.

Recommendations

Regarding the current study, there are recommendations for both teachers and curriculum developers.

Recommendations for Teachers:

Teachers should continually push their pupils to interact positively with their teachers, peers, and other materials and describe their identities, feelings, problems, people, and societies. To inspire pupils to engage in different activities, teachers should also engage themselves as models in the same activities.

Recommendations for curriculum developers

The researchers suggest that curriculum designers use the research results when developing the curriculum to include various digital story strategies in the learning process and give pupils a chance to develop their descriptive writing level by involving pupils in digital activities.

References

Allagui, B. (2019). Writing a Descriptive Paragraph Using an Augmented Reality Application: An Evaluation of Students' Performance and Attitudes. *Technology, Knowledge and Learning,* 26(3), 687–710. https://doi.org/10.1007/s10758-019-09429-2

Al-Zahrany, A., & Al-Zahrany, I. (2019). *Ather Estkhdam Nmadi El- kharad El-Zehnia Fi Tanmit Mafaheem Al- Hasseb Al-Ali Lda Dolap Al-Thanwya. (The Effect of Using the Two Types of Mind Mapping in Developing some of the Computer Skills for Secondary Stage Pupils).* Assiut. DAR El-MANDUMAH.

Bandura, A. & Kytle, J. (1978). Social Learning Theory. *Contemporary Sociology*, 7(1), 84. https://doi.org/10.2307/206595.

Burns, A., & Siegel, J. (2018). International Perspectives on Teaching the Four Skills in ELT. Cham: Springer International Publishing.

Carter, K. (2015). Teaching Descriptive Writing through Visualization and the Five Senses. *English Teaching Forum,* 53(2), 37-40. http://files.eric.ed.gov/fulltext/EJ1065665.pdf

Chao, G., Jong, M., Chai, S., & Luk, H. (2020). Development of the motivation and engagement in virtual reality Chinese language learning questionnaire*: International Symposium on Educational Technology (ISET).Bangkok,* pp. 67–72.

Chen, M., Chai, C. S., Jong, M. S. Y., & Chao, G. C. N. (2021). Modeling learners' self-concept in Chinese descriptive writing based on the affordances of a virtual reality supported environment. *Education and Information Technologies*, 26(5), 6013–6032. https://doi.org/10.1007/s10639-021-10582-4

Conn, J. (2015). *Teacher Perceptions of the Impact of Digital photo story strategy on Students with Autism Spectrum Disorder* (No. 10023294). Gardner-Webb University.

Datchuk, S. M. (2015, September 10). Writing Simple Sentences and Descriptive Paragraphs: Effects of an Intervention on Adolescents with Writing Difficulties. *Journal of Behavioral Education*, 25(2), 166–188. https://doi.org/10.1007/s10864-015-9236-x

Fox, J., & Bailenson, J. N. (2009). Virtual Self-Modeling: The Effects of Vicarious Reinforcement and Identification on Exercise Behaviors. *Media Psychology*, *12*(1), 1–25. https://doi.org/10.1080/15213260802669474

Handoko, C. (2017). Kedudukan Alat Bukti Digital Dalam Pembuktian Cybercrime Di Pengadilan) The Position of Digital Evidence in Developing Cyper Crime in Court). *Pengadilan. Jurnal Jurisprudence*, 6(1), 1. https://doi.org/10.23917/jurisprudence.v6i1.2992

Hayik, R. (2017). Promoting Descriptive Writing through Culturally Relevant Literature. *International Perspectives on Teaching the Four Skills in ELT*, 193–203. https://doi.org/10.1007/978-3-319-63444-9_14

Kucirkova, N. (2018). *How and Why to Read and Create Children's Digital Books: A Guide for Primary Practitioners.* UCL Press. *https://www.uclpress.co.uk/products/109473#*

Kaoud, A. (2015). The Effectiveness of some Educational Approaches on Developing English Creative Writing (CW) Skills of Secondary Stage Students. *Institute of Educational Studies,* Cairo University.

Lai, C. L., & Hwang, G. J. (2014). Effects of mobile *learning* time on students' conception of collaboration, communication, complex problem-solving, meta-cognitive awareness and creativity. *International Journal of Mobile Learning and Organization*, 8(3), 276–291.

Lingard, L., & Watling, C. (2021) Introduction. In: Story, Not Study: 30 Brief Lessons to Inspire Health Researchers as Writers. *Innovation and Change in Professional Education*, vol 19. Springer, Cham.

Okros, A. (2020). Harnessing the Potential of Digital Post-Millennials in the Future Workplace (p. 62-63-54). Canada: Springer Nature Switzerland

Pourdana, N., & Asghari, S. (2021). Different dimensions of teacher and peer assessment of EFL learners' writing: descriptive and narrative genres in focus. *Language Testing in Asia*, *11*(1). https://doi.org/10.1186/s40468-021-00122-9

Shhaat, A. (2015). *The effectiveness of an EFL program based on approach in developing preparatory School students writing skills and reflective thinking* (Published Master thesis). Ain Shams University.

Turpie, J. (2012). Creative engineers. In Wright, S., Kieffer, J., Holden, J., Newbigin, J. (Eds.) *Creativity Money Love: Learning for the 21st Century*. Canada: Springer Nature Switzerland

Yunus, M., & Chien, H. (2016). The use of mind mapping strategy in Malaysian University English Test (MUET) writing. *Creative Education,* 7, 619–626.