A Digital Literacy Approach Based Program to Develop EFL Secondary School Students' Linguistic Competence, Writing Modes and Life Skills.

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Abstract

The aim of the present study was to investigate the effect of using a digital literacy approach based program on developing EFL secondary school students' linguistic competence, writing modes and life skills. The current study adopted the pre- post quasi-experimental research design. Two groups of (60) female EFL secondary school students, enrolled in the first year in the academic year 2021/2022, were randomly drawn from Mashtoul El-Kady secondary school in Zagazig and assigned to form the experimental group and the control one. The experimental group was taught a program based on digital literacy approach, while the control group received regular instruction. The data were collected through a linguistic competence skills test, writing modes skills test and a life skills scale. These instruments were developed by the researcher, approved by jury members in the field of TEFL, and pre- and post- administered to the both groups. Results of the study indicated that the program based on digital literacy approach was effective in developing linguistic competence, writing modes and life skills. Therefore, it is recommended that teachers in EFL contexts adopt a digital literacy approach based program for its pivotal role in teaching linguistic competence, writing modes and life skills.

Keywords: *Digital Literacy Linguistic Competence Writing Modes Life Skills*.

1.   INTRODUCTION

English language is largely accepted as means of communication among people from different countries. This language has become one of the most widely spoken languages by speakers of other languages, largely due to the role it plays in the social and academic world. Moreover, it plays a significant role in weaving the world into a single thread.

The concept of linguistic competence is first cited by Chomsky in 1965 in his linguistic theory. He distinguished between competence and Modes. "Competence" for Chomsky is an idealization opposed to "Modes" which means the actual use of language. Also, he confirms that linguistic competence underscores the ability to understand what is said and to produce a signal with an intended semantic interpretation. Moreover, he states that competent or ideal speaker-listener can determine the intrinsic meaning of vague sentences through the internalized system of rules that help him to distinguish both, the phonetic shape and semantic meaning of the sentence (Chomsky, 2006).

Carroll explains the aspects of productive and receptive skills, e.g. listening, speaking, reading and writing skills. Linguistic competence is organized crossingly where language skills (speaking, listening, reading and writing) are interrelated with language aspects (phonology/ orthography, morphology, syntax and lexicon). It determines language aspects involved in each skill of the language. (Sterm,2007: 350).

Writing plays an important role in EFL personal and professional lives (Corgill, 2008) and is considered one of the most important skills that EFL students need to develop. Therefore, command of good writing is increasingly seen as dynamic to equip learners for success in the 21st century because the ability to communicate ideas and information effectively through the global digital network is decisively dependent on good writing (Hyland, 2003). Over time, the ability to effectively write becomes increasingly important.

Mirzaii (2012) states that "writing as a skill involves people to know a number of complex, linguistic, rhetorical, and predetermined conventional rules. According to, Richards and Schmidt (2010) presented four types of non-creative writing modes including descriptive, narrative, expository, and argumentative writing, maintaining that a implied consensus among EFL writing teachers is that beginner writers should begin with the simplest mode, that is, the descriptive essay and gradually move towards learning the most complex one, that is, the argumentative mode.

Kagan (2004) states that nowadays educators are fronting a challenge, which he referred to a 'life skills crises'. In his opinion this crisis resulted from the mismatches between what students acquire in the classroom and the demands placed on them outside the

classroom. A lot is taught but little is learnt or understood. Knowles (2013) reassures that educators need to admit, face and address the life skills crisis for the happiness and success of students and the productiveness and success of the society. Whether referred to as life skills or 21st century skills or soft skills, or social skills Life skills is a broad concept and cannot be defined in one definite group as functioning effectively in society needs a variety of skills (Bailey & Deen, 2002). Cauthen (2012) added that life skills are several and implemented in many places and the meaning of life skill varies depending on the field one is using it.

In dealing with the growing of the technologies, students need to be encouraged and ready to get lifelong knowledge and skills in the learning environment. The understanding of the notion of digital literacy has to go through long-term development and its recent appearance. Buckingham (2007) suggests that digital literacy involves evaluating and using information critically, in order to convert it into knowledge, including an understanding about the sources of information. The Educational Testing Service (ETS) defines digital literacy as the ability to use "digital technology, communications tools, access to networks, manage, integrate, evaluate, and create information in order to function in a knowledge society". Fieldhouse & Nicholas (2008) declare that digital literacy is concerned with contextualizing, analyzing, and synthesizing information that is found online.

Sinclair (2010) claims that digital literacy is not only about accessing information, but also re-using, adapting, combining, and sharing this information in new ways. Hague & Payton (2011) said that digitally literate individuals can make and share meaning in different modes and formats, in order to create, collaborate and communicate successfully and understand how to use digital tools to support these processes. Ng's (2012) description of digital literacy focuses on users' ability to think critically in the search and evaluation of information, as well as the ability to understand and integrate information that is linguistic, audio, spatial, gestural and multi-modal.

Furthermore, Robin (2006) argued that the digital storytelling is the process of integrating various digital tools such audio, image and video with the traditional way of telling story. It is very helpful for the students which stimulate them to be creative storytellers since they will follow some process such as selecting a topic, conducting some researches, writing a script (Robin, 2008). Then, these materials are combined with a several multimedia, such as graphics, recorded audio, video clips, and music. Then digital story is ready to be played on a computer or uploaded on any internet website.

1.2 Context of the problem

In the field of teaching English, linguistic competence is considered especially valuable in the foreign language context because it is a major source for students to obtain language input (Elola, 2014).Therefore it is crucial that students become proficient in it. They should understand the huge important of the linguistic competence skills for their academic performance especially in vocabulary and grammar (Sterm,2007and chomasky 2006)

In spite of the importance of EFL linguistic competence skills, secondary school students, taught within the framework of regular method which show a noticeable weakness in vocabulary and grammar skills. This point of view was supported by several related studies such as (McDonough ,2002: Widdowson 2003) .

In addition to the weakness of EFL secondary student's linguistic competence skills, it was noticed that students had a low achievement in writing modes. As they found it difficult to differentiate the different modes of writing such as (e.g narrative, descriptive , expository and persuasive) This point of view was supported by several related studies such as (Robin,2016; Reyes Torres,2014)

 Students also had low life skills as they avoid critical thinking skills, problem solving skills, and interpersonal skills. It was obvious that enhancing student's life skills, which influences their behaviors and performances, was very important to develop their linguistic competence skills and writing modes. This point of view was supported by several studies such as: (Laud & Patel,2017; Obiozor,2010; Gregersen,2013)

In order to document that problem, a pilot study was conducted on EFL first year secondary school students of Mashtoul El-Kady secondary school in Zagazig, during the second semester of the academic year 2021/2022. The pilot study included a linguistic competence skills test , writing modes test and a life skills scale. They were administered to (30) 1st year students. The results indicated that the majority of the students have deficiencies in these variables.

1.3 Statement of the problem

Based on the previous studies, the researcher's teaching experience, and the results of the pilot study , it could be concluded that most students had poor performance of using linguistic competence skills, writing modes and life skills. Therefore, this study is an attempt to improve linguistic competence skills, writing modes and life skills through implementing a program based on a digital literacy through using digital storytelling. To achieve this , the current study was an attempt to answer the following main questions :

What is the effect of a digital literacy approach based program on developing the EFL secondary school students' linguistic competence, writing modes and life skills?

This main question could be subdivided into the following ones :

1.   What are the linguistic competence skills required for e first year secondary school student?

2.   To what extent de EFL first year secondary school student master the linguistic competence skills?

3.   What is the effect of a digital literacy approach based program on developing EFL first year linguistic competence?

4. What are the writing modes skills required for EFL secondary school students?

5. To what extent do EFL first year secondary school students master the writing modes skills?

6. What is the effect of a digital literacy approach based program on developing EFL first year writing modes?

7. What is the life skills level required for EFL first year secondary students?

8. To what extent do EFL first year secondary students obtain the life skills level ?

9. What is the effect of a digital literacy approach based program to develop EFL first year secondary students' life skills?

10. What are the features of a digital literacy approach based program that might help develop EFL linguistic competence , writing modes and life skills?

2. LITERATURE REVIEW

2.1 EFL Linguistic Competence

The notion of linguistic competence is first cited by Chomsky in 1965 in his linguistic theory. He distinguished between competence and performance. "Competence" for Chomsky is an idealization opposed to "performance" which means the actual use of language. Also, he confirms that linguistic competence underlines the ability to understand what is said and to produce a signal with an intended semantic interpretation. Moreover, he states that competent or ideal speaker-listener can determine the intrinsic meaning of ambiguous sentences through the internalized system of rules that help him to recognize both, the phonetic shape and semantic meaning of the sentence (Chomsky, 2006: 102).

McDonough (2002: 20) believes that linguistic competence refers to the ability or knowledge of how sentences are constructed in a language, the sound system of a language, and the meaning of the words of the language. Widdowson (2003: 166) believes that it is exclusively a matter of grammatical knowledge.

Carroll illustrates the aspects of productive and receptive skills, e.g. listening, speaking, reading and writing skills. Linguistic competence is tabulated crossingly where language skills (speaking, listening, reading and writing) are interrelated with language aspects (phonology/ orthography, morphology, syntax and lexicon). It determines language aspects involved in each skill of the language.

For example, listening skill involves using specific language aspects. These aspects are "phonology" for phoneme recognition and discrimination, "lexicon" is used in recognition of meaning of the lexical elements of (morphemes, words, idioms) and the recognition of the semantic meaning, and "morphology and syntax" which are used in the recognition of morphological and grammatical properties of the spoken language. Through this chart we can check components of the linguistic competence involved in each skill (Sterm, 1991: 350).

2.1.1 Grammatical Competence:

Linguistic scholars claim that grammatical competence is necessary for language learners to achieve communicative competence. In several models of communicative competence, it is included as the prominent element. Due to the importance of grammatical competence, grammar lesson still remains as an important issue in language learning and prominent in foreign language course books and classroom practices (Ur, 2011). However, scholars have different views about the concept of grammatical competence. Skehan (1998) defines grammatical competence as the language users' knowledge about the structure of the language. Meanwhile, the ability of language users to practice their language knowledge in the real situation as grammatical performance. On the other hand, grammatical competence is defined as the knowledge about the structure of a language including phonology, lexicon, syntax, semantics, and the ability to practice that knowledge for communicative purposes (Bachman, 1990; Canale & Swain, 1980; Celce-Murcia *et al*, 1995; Larsen-Freeman, 2003; Richards, 2006; Savignon, 1997). This opinion views that grammatical competence is the product of having grammatical knowledge. It also can be observed that mostly the students' with good grammatical competence have good grammatical knowledge. Therefore, it can be inferred that grammatical competence covers the aspect of knowledge and ability in using grammar.

Achieving good grammatical competence of a foreign language such as English is a challenging feat for EFL students. They need to know the differences between Arab and English grammar since there is a significant difference in the grammatical systems between these two languages. It can be seen in many aspects such as phonology (vowel, consonant, intonation, rhythm and stress, spelling and pronunciation), orthography and punctuation (grammar, word order, number, countability gender, personal pronoun, genitive and possessive pronoun, relative pronoun, reflexive pronouns, topicalisation structures, 'it' and 'there', articles/determiners, verbs, time, tense and aspects, to be, modal auxiliary verbs, non-finite forms, negatives, question forms and question tags, active and passive, complex sentences, prepositions, adjective and adverbs) and vocabulary and style (range and choice of vocabulary, transfer, confusion, culture and language) (Sumbayak, 2009). Due to those complex aspects, the students tend to be influenced by the Arab language that is also called interference (Brown, 2001; Ellis, 1997; Harmer, 2001; Ayafor, 2015; Taochie, 1986). Otherwise, the students tend to be influenced by the target language or English that is also known as overgeneralization (Ayafor, 2015; Touchie, 1986).

2.1.2 Assessing Grammatical Competence

Assessing grammatical competence is done to measure the improvement of students' grammatical competence. It is different from testing grammar although testing is a part of assessment (Brown, 2004). Asessing grammar can be done by observing the students' language when they get involved in asking and giving questions, discussion, dialogues, and other kinds of communication. In addition, it also can be done although the students do not realize it. Meanwhile in testing, the students know that they are going to be assessed so they will prepare themselves well for the test. In preparing the test, teachers need to consider several aspects such as practicality, duration, validity, and reliability (Brown, 2004).

In measuring students' grammatical competence in communication processes, particularly in spoken language, teachers do not need to do it in a grammar testing form since it does not look natural since students will prepare themselves only for the test. Meanwhile, if teachers measure students' grammatical competence through informal assessment in performance tasks activities such as dialogues, interviews, asking and answering questions, and discussion. (Brown, 2004), they will be able to see how the students perform their grammatical competence in natural ways and integrated activities since the students do not prepare themselves for the sake of scores. In a similar manner, Purpura (2013) articulates that the appropriate way to measure grammatical competence is through performance tasks. In the tasks, language learners should practice their grammar knowledge related to pronunciation, the correct forms, meaning, and use of grammar due to the interconnection of those aspects(Larsen-Freeman, 2001).

2.1.3 Grammar

a. The Notion Of Grammar:

Grammar is a component that has an essential role in a language. It is claimed that it is the heart of a language because it provides the grammatical structures to produce correct and meaningful language. However, the definition of grammar is still a controversial topic in the history of linguistics and language teaching. Language experts have different perspectives in explaining grammar. Weaver (1996) defines grammar as the way to describe the syntax of a language. In addition, Chierchia and Ginet (2000) state that grammar is a theoretical tool and organization that forms the good sentence of the language. It is also supported by the argument that claims grammar as a set of rules of a language to change the words to new formations and governs the connection of the words in the sentence level (Brown, 2001; Coffin & North, 2013; Harmer, 2001; Thornburry, 1999). These opinions limit the grammar definition on the word-formation. It does not include the aspects of sounds, pronunciation, and contextual use in using grammar.

2.1.4 Vocabulary

a. The Conception Of Vocabulary:

Using any language to communicate accurately is not easy for the learners. It truly depends on their four language skill levels, such speaking writing, listening and reading. those four skills are consistently influenced by some elements of language such as vocabulary, grammar, spelling, pronunciation. Among those elements; vocabulary is considered to be the most important one since it is the basic unit of language (McCrthy, 1990). Related to the definition of vocabulary, the scholars proposed various definition of it. Richard and Renandya (2002) defined the vocabulary as an essential language proficiency component which influence to how well learners listen, speak, write, and read. It is in line to (Gasma, 2017) who claimed that vocabulary is the core element of language which will make the language meaningful Furthermore, Nation (2001) explained the interrelationship between knowledge of vocabulary and language use.

2.2 Part Two: Writing Modes

2.2.1 The Definition of Writing Skill:

Writing skill is one of the "four skills" of English language learning like speaking, reading, and listening. Writing is an activity to communicate using writing in the form of letters, numbers, or symbols. Writing also is a productive activity because it produces a product. Flower and Hayes in Armana (2011:28) describe that writing as a cognitive process consists of four interactive components: task, environment, the writer's long-term memory, and the composing processes themselves. The environment task consists of writing topic, the audience, the degree of the urgency of the task, and the text produced so far. The writer's long-term memory retains definitions of the topic, the identity of the audience, and possible writing plan. The writing processes include planning, translating, and reviewing.

2.2.2 Modes of Writing :

Modes of writing are varieties, it cause to develop the student's writing skill. There are many different modes of writing, every modes have different aims and meanings. According to Meer (2016) there are four different modes of writing styles:

a. Expository. Expository writing's main purpose is to explain, inform, clarify, define or instruct through logical analysis. There are many ways to develop a logical analysis, including comparison and contrast, cause and an effect, problem and solution,

definition, examples and logical division. It is a subject-oriented writing style, in which authors focus on telling you about a given topic or subject without voicing their personal opinions. These types of essays or articles furnish you with relevant facts and figures but do not include their opinions.

This is one of the most common types of writing. You always see it in textbooks and articles. The author just tells you about a given subject, such as how to do something. It demonstrates many characteristics, such as focusing on the main topic, logical supporting facts, strong organization, a logical order, clarity, unity and coherence, and smooth transitions (Blanchart and Root,2004; Folse et al., 2001).

b. Descriptive. Descriptive writing's main purpose is to describe. It is a style of writing that focuses on describing a character, an event, or a place in great detail. It can be poetic when the author takes the time to be very specific in his or her descriptions. It is the simplest type of academic writing process which provides details of facts and information. This type of writing is characterized by: sensory details, precise language, comparisons (Bukhari, 2016).

c. Persuasive. Persuasive writing is a complex task in which the writer offers reasons and supporting ideas to persuade the audience. Unlike expository writing, persuasive writing contains the opinions and biases of the author. To convince others to agree with the author's point of view, persuasive writing contains justifications and reasons. It is often used in letters of complaint, advertisements or commercials, affiliate marketing pitches, cover letters, and newspaper opinion and editorial pieces. In the same trace, Corner (1987) said that writing persuasive essay is an intricate cognitive process that is associated with the writer's purpose, the audiences' expectations, the expected rhetorical patterns and the contextual position.

d. Narrative. Narrative writing's main purpose is to tell a story. The author will create different characters and tell you what happens to them (sometimes the author writes from the point of view of one of the characters this is known as first person narration). Novels, short stories, novellas, poetry, and biographies can all fall in the narrative writing style. Simply, narrative writing answers the question: What happened then? Also it helps students to develop imaginative thinking and participates in literary comprehension as a whole (Adam, 2015).

2.3 Part Three: Life Skills

2.3.1 Evolving Life Skill Definitions

Cauthen (2012, p. 22) indicated that assigning a clear and concise definition for life skills is a crucial step in designing a life skills learning program, in order to assess the growth and development of participants through the process of learning life skills. According to the United Nations Children's Fund (UNICEF, 2009) life skills refers to "a behavior change or behavior development approach designed to address a balance of three areas: knowledge, attitudes and skills". The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2009) defined them as "a group of cognitive, personal and interpersonal abilities that help people make informed decision, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and cope with and manage their lives in a healthy and productive manner".

2.3.2 Life Skills and Language Learning Strategies:

Gregersen (2013, p. 14) declared that the goals for life skills and learning strategies are closely intertwined. In essence, life skills education aims at offering strategies to students so that they make true and wise choices that contribute to a meaningful life (www.unicef.org). Dornyei (2005, p. 169 cited in Gregersen, p. 14) suggests the following learning strategies four categories that reflect life skills education:

1) Social strategies: These mirror the communication and interpersonal life skills. As language learners ask verification questions, request clarification, ask for help in doing a language task (Oxford, 2003), they will also be practicing the essential interpersonal communication life skills i.e. verbal and nonverbal communication, active listening, expressing feelings and giving feedback, negotiating and managing conflict, building empathy and cooperating with others.

2) Cognitive strategies: when language learners use these strategies (including: reasoning, analysis, note-taking, summarizing, synthesizing) to manipulate the language materials in direct ways (Oxford, 2003), they will also be developing the cognitive life skills of information gathering, evaluating future consequences of present actions, determining alternative solutions to problems, and analyzing the influence of values and attitudes.

3) Metacognitive strategies: An effective strategies which involve taking control of the emotional/affective conditions of person. It reflects the personal life skills of coping and self-management as they build their self-esteem and self-confidence (UNICEF.org). i.e. analyzing, monitoring, evaluating, planning, and organizing the learning process (Oxford, 2003).

2.4 Part Four: Digital literacy

2.4.1 Digital literacy

Digital literacy is defined as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (Gilster, 1997, p.215). Basically, "digital literacy represents a person's ability to perform tasks effectively in a digital environment, with 'digital' meaning information represented in numeric form and primarily for use by a computer" (Jones-Kavalier & Flannigan, 2006, p. 9). The use of one of digital literacy tools in learning English is compulsory to determine "the ability to use technology as a tool to research, organize, evaluate, and communicate information, and the

possession of a fundamental understanding of the ethical/legal issues surrounding the access and use of information" (Lankshear & Knobel, 2006a, p. 23). Digital literacy promotes digital technology to process various pieces of information in online contexts such as Web 2.0 and its online applications.

2.4.2 Digital Literacy and Adult English Language Learners

Adult English language learners (ELLs) come from a variety of backgrounds and have different learning experiences and English language skills, as well as different levels of experience with print literacy and technology. Limited English language and literacy skills make it especially challenging for ELLs to acquire digital literacy skills. However, English language skills and digital literacy are essential for obtaining and keeping a family-sustaining job, supporting children in school, participating in community life, obtaining community services, and accessing further education and training.

ELLs and their teachers are part of a continuum of digital literacy experience and skills. Education, age, income, access to technology, social networks, and family members' use of digital technologies are some of the many factors that influence the digital literacy of ELLs. Some ELLs have digital literacy skills in another language and need to develop their English language skills to be able to use those digital literacy skills in English. Other ELLs have print literacy skills in another language and need to develop both their English language and digital literacy skills. Still other ELLs are developing skills in all three areas: print literacy, English language, and digital literacy.

 Different supports are required for these various types of ELLs as they develop digital literacy skills, including face-to-face support by teachers, tutors, or peers; online support, such as images or translations that pop up when mousing over words; and appropriate content support (National Institute for Literacy, 2008; Reder, Vanek, & Wrigley, 2012). and need to develop their English language skills to be able to use those digital literacy skills in English. Other ELLs have print literacy skills in another language and need to develop both their English language and digital literacy skills. Still other ELLs are developing skills in all three areas: print literacy, English language, and digital literacy.

2.4.3 Digital storytelling as a kind of digital literacy

a. The Nature of Digital Story

The integration of technology in the field of education plays a vital role in almost all subjects, including English language teaching and learning. Many useful digital tools, one of them is a digital story. It is a new and powerful media used in classroom activity. It has been progressively utilized for any instructional purposes (Lee, 2014). It can be used to help students in improving their language skills. Some experts gave their definitions on digital storytelling. According to Lee (2014), digital story is the story which is created by integrating several digital media such as audio, image, and video elements. They are often posted for open access through video services like YouTube and some other media video service that keep on getting to be obtainable through the web browser (Ohler, 2013).

Then, Gubrium (2009) claimed that Digital stories are visual narratives which have a duration of 3- to 5-minutes, sometimes up to10 minutes by combining some media such as images, video, audio recordings of voice and music, and text to create compelling accounts of experience (Robin, 2016). Furthermore, Robin (2019) defined digital storytelling simply as the practice of using computer-based tools to tell stories. It includes multiple forms of media: images and video, music, text, and narration (Robin, 2016). In addition, Frazel (2011) stated that digital storytelling is a process of blending some media to enrich and enhance the written or spoken word.

3. METHODOLOGY

3.1 design of the study :

The present study follows the descriptive and analytical design to describe and survey literature and related studies . It also adopts a quasi- experimental design . Using this design , the researcher selected two first – year secondary classes . Then, she assigned one of them to a control group and the other to an experimental group. Moreover , the experimental group students studied using a digital literacy approach based program for improving students' linguistic competence , writing modes , and their life skills . As for the control group , students received regular classroom teaching . Upon the completion of the experiment , the two groups were post tested after they had been pretested at the beginning . Also, differences in mean score between the two groups were evaluated .

3.2 participants of the study :

Two first-year secondary classes from mashtoul El-kady secondary school , West zagazig education zone were randomly assigned to participate in the study . participants' age ranged between 15-16 years . One class was assigned to the control group (n=30) and the other to the experimental group (n=30) .All participants spent at least 9 years learning EFL 6 years at the primary school and 3 years at the preparatory school . They have also studied computer for 5 years at both the previous stages.

3.3 Study instruments :

In order to fulfill the purpose of the study and test the hypotheses , the researcher deve loped some instruments for her study . They are the EFL linguistic competence skills test . the EFL writing modes skills test and the life skill scale .

3.4 Study Material

(A Digital literacy approach based program)

3.4.1 Aim of the program

A Digital literacy approach based program was designed to develop EFL secondary school students' linguistic competence, writing modes and life -skills .

3.4.2 Description of the program.

Ten sessions were designed on the program based on A digital literacy approach to develop EFL first – year secondary students' linguistic competence, writing modes and life skills . A Digital literacy approach based program could be convinced on three aspects including digital competence, digital usage and digital transformation. All these aspects could be implemented and organized via digital storytelling . As it enables students to use the new technology in an effective way , especially when they are engaged with digital resources and useful editing tools to create a Digital production.

4. RESULTS

4.1.1 Hypothesis one

To test the first hypothesis which stated they " there would be a statistically significant difference between the treatment and the non-treatment groups' mean scores on the linguistic competence skills post-test on favor of the treatment group. The independent sample t-test was used to verify this hypothesis, as shown in table (1) .

Table 1

t-test results of the post administration of the linguistic competence skills test comparing the treatment group to the non-treatment group.

Group	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig.
Treatment	30	33.13	2.097	.38	17.23		
Non-treatment	30	14.57	5.519	1.01	17.23	58	0.01

Significant at (0.01) level

4.1.2 Hypothesis two

The second hypothesis pre supposed that "A digital literacy approach based program would be effective in developing the experimental group students' linguistic competence skills " . Cohen's equation was used to verify the hypothesis. The effectiveness is measured through Cohen's equation.

Table(2)

The effect size of a digital literacy approach based program on developing the linguistic competence skills of the treatment and non – treatment groups using cohen's Equation .

Independent variable	Dependent variable	$\eta2$	D	Es(Effect size)
A digital literacy approach based program	Linguistic competence	0.84	4.58	Huge

4.1.3 Hypothesis three

The third hypothesis pre supposed " there would be a statistically significant difference between the treatment and the non-treatment groups 'mean scores on the writing modes post – test in favor of the treatment group " . The independent samples t- test was used to verify this hypothesis, as shown in table (3) .

Table (3)

t- test results of the post administration of the writing modes test comparing the treatment group to the non-treatment group.

Group	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig.
Treatment	30	30.17	1.68	0.31	26.36	58	0.01
Non-treatment	30	10.43	3.74	0.68	26.36		

Significant at (0.01) level

4.1.4 Hypothesis four

The fourth hypothesis stated ' " A digital literacy approach based program would be effective in developing the experimental group students' writing modes skills. The researcher tested Cohen's formula.

Table 4

The effect size of a digital literacy approach based program on developing the writing modes skills of the treatment and non-treatment groups using Cohen's Equation.

Independent variable	Dependant variable	$\eta2$	D	Es (effect size)
A digital literacy approach based program	Writing modes	0.92	6.79	Huge

4.1.5 Hypothesis five

It was hypothesized that " there would be a statistically significant difference between the treatment and the non-treatment groups' mean scores on the life skill post – scale in favor of the treatment group " . A paired samples t-test was used to verify this hypothesis, as shown in table (5) .

Table (5)

t-test results of the post administration of the life skill scale comparing the treatment group to the non-treatment group.

Group	N	Mean	Std. Deviation	Std. Error Mean	T	df	Sig.
Treatment	30	30.1667	1.654	0.31	12.11	29	0.01
Non-treatment	30	17.6333	3.59	0.61	12.11		

Significant at (0.01) level

4.1.6 Hypothesis six

The sixth hypothesis stated, " A digital literacy approach based program would be effective in developing the experimental group students' life skills ". The researcher tested Cohen's formula.

Table (6)

The effect size of a digital literacy approach based program on developing the life skills of the treatment and the non-treatment groups using Cohen's equation.

Independent variable	Dependant variable	$\eta2$	D	Es (effect size)
A digital literacy approach based program	Life skills	0.84	4.4	Huge

5. Discussion and interpretations of the results

The aim of the current study is to develop first year secondary school students' linguistic competence, writing modes and life skills. Quantitative data were collected through the administration of the linguistic competence skills test, the writing modes skills test and the life skills scale before and after the treatment. The results of the linguistic competence skills test and the writing modes skills test revealed a significant increase in these variables . Additionally, the findings of the life skills scale revealed an improvement concerning the use of a digital literacy approach based program. Furthermore, the results of the present study were discussed in the light of the study hypotheses as follows:

5.1 The first and second hypotheses

The results of the first hypothesis indicated that there is a statistically significant difference at (0.01) level between the treatment and the non-treatment groups' mean scores on the linguistic competence post test in favor of the treatment group. The second hypothesis indicated that A digital literacy approach based program is effective in developing EFL students' linguistic competence, concerning (vocabulary and grammar) skills. These results can be attributed to the following reasons:

1. The participants were active and very enthusiastic during the sessions of implementing a digital literacy approach based program which motivated them to use technology to access , manage , integrate, evaluate, create, and communicate information. In addition, many kinds of literacies were developed by using different digital activities such as : information literacy, media literacy and visual literacy. These results were on the same track of (Bataller – catala , 2013; Oskoz and Elola,2014)
2. The instructor's role was a facilitator and a supervisor. She helped her participants to use technological tools including cameras, microphones and video editing software. She also encouraged them to use a variety of media and formats to present and share ideas with others in a creative way. These results were the same of (Clark, couldry , macdonald and stephasen ,2015 ;xu , park and Beak , 2011)
3. In this study, the instructor indicates to her students the huge importance of linguistic competence skills for their academic performance especially in vocabulary and grammar. She also illustrates the strong connection among learning new vocabularies, practicing grammatical rules and writing process especially different modes of writing.
4. The teacher made her students use some digital dictionaries, engines and programs to get a synonyms , antonyms and definitions of new words by using these digital tools , participants could extract some grammatical rules through reading the definitions' examples of these new words. Also the researcher tried to teach her students, how to build a good definition for each target word, generate different parts of speech, (e.g. noun , verb, adverb, adjective ,......) , Use verbs with infinitive form and ing form, and practice some model verbs such as (should/ shouldn't , must / mustn't) .
5. Using many activities through multi model texts and the seven steps of digital storytelling, the participants recognized the morphology of the target words such as (root, suffix and prefix) , and poly words such as (phrasal verbs, expression of time and prepositions of place) .
6. The researcher used the think aloud protocol to make and understand a storyboard which used as a preparation step for creating digital storytelling. Through the think aloud protocol, the participants could observe the different steps of the digital story, set different ideas , generate different types of questions, and think critically. They also could link past simple tense and the past continuous one , recognize the present simple, the present perfect and their passive forms, and also identify future forms with (will , be going to and present continuous) .
7. After using some digital literacy activities, the seven steps of digital storytelling, the storyboard and the story cycles , participants acquired some different skills in vocabulary and grammar as they could practise a lot of tenses in grammar and learn a lot of new words in vocabulary which helped them to verify their writing modes, and send their messages correctly through the digital stories.
8. The participants learning logs were used after each session by the researcher to evaluate the participants' performance in the linguistic competence (vocabulary and grammar) while using the digital literacy approach based program. In these logs, the participants said that a digital literacy program made them recognize many new words through images , multi-model texts and digital stories and also practise many grammatical rules in writing different modes .

5.2 The third and fourth hypotheses

The results of the third hypothesis indicated that there is a statistically significant difference at (0.01) between the treatment group and the non-treatment groups' mean scores on the writing modes post - test in favor of the treatment group. The fourth hypothesis

is indicated that a digital literacy approach program is effective in developing EFL students' writing modes. These results can be attributed to the following reasons.

1. In this study , the researcher tried to teach her students to differentiate the different modes of writing such as (e.g. narrative, descriptive, expository and persuasive) , to use them as a background knowledge they needed for creating their digital scripts.

2. The instructor helped her students to create their digital content by using a wide range of sources such as (interviews, journals and websites) . Once the teacher and the students narrowed down the topic , they tried to write the acquired content in the forms of writing modes.

3. During writing process, the instructor turned their attention to emphasize the accuracy of the written language. Either by revising several drafts or focusing on language accuracy. As learners not only gained focus on their grammar and vocabulary, but also on the structure and organization that would bring narrative cohesion and coherence to their digital texts. And all these results consistent with (Brigido – corachen ,2013 ; Reyes Torres , 2014 ; Oskoz &Elola , 2014 ; Robin, 2016) .

4. During the digital literacy program, the teacher began to use the visual literacy to give the students the ability to understand and use images to think and learn . Here, the teacher and the students worked on the quality and relevance of the selected images related to the visual component of the digital texts. After that the teacher involved his students in stories of literary tours via videos that helped them to gather different pictures and to be included in their digital productions . Now by the help of the teacher, the learners became aware of the power of implicit and explicit images and how their use could amplify the meaning of the written Text to create a multimodel one by adding sound and music. And this result is in the line with Ricart , Montanes , Fernandez and knorr de Santiago, (2013) .

5. During the digital literacy program, the researcher noticed that the participants were very eager to use digital stories and story cycles . They were very active to finish editing, refining their writing and computerizing their stories with adding images, music, sound and narration . By using storyboard, story cycles, digital texts , it was assured that digital stories provide many opportunities for students to write many different modes of writing as a background knowledge for their digital stories and make them free from print literacies to add deeper dimension to their work . Also digital storytelling activities played a vital role as a hook to capture participants' attention and increase their interest in writing. All these results are in line with (Morra, 2013 ; Robin,2016 ; and DiBlas et al , 2019) .

6. The most important step in this program that helped the participants very much was the explanation of using the software programs and web tools for brainstorming, organizing and rehearsing their thoughts and ideas in building their digital writing and using the multimodel text. The participants were able to revise their writing easily through using the word processing function in Microsoft PowerPoint and Microsoft photo story 3. As they no longer had to suffer from handwriting.

7. After writing different modes of writing and try to convert them to a digital text , participants could extend their chain of thoughts , add new ideas , insights and clues to the content. They were able to relate and correlate the pieces of information gathered in writing the different modes together through predictions and inferences. They could differentiate between facts and opinions and also make comments, take notes on the key point of the text , and it also helped them to introduce their point of view and their personal opinions by narrating such story with its writer's. This narration motivated the participants to improve their writing and to do their best work in order to gain the appreciation and respect of their peers who responded to their performance and provided feedback by the help of their instructor.

All these results are in the line with (Blackesley& Hoogeveen,2012 ; Hamilton,2009 ; frazel , 2010 ; and Devoss et al , 2010) .

5.3 The fifth and sixth hypotheses

The results of the fifth hypothesis indicated that there is a statistically significant difference at (0.01) level between the treatment and the non-treatment groups' mean scores on the life skills post scale in favor of the treatment group. The sixth hypothesis indicated that a digital literacy approach based program is effective in developing EFL students' life skills. These results can be attributed to the following reasons:

1. In this study, the researcher tried to teach the students how to write different modes of writing digitally and convert them to a digital story to narrate the text with adding images, sound and music. She noticed that it was very urgent and important to develop the students' life skills and increase their categories within which the skills are placed: (i.e. communication and interpersonal skills, decision- making and critical thinking skills, and coping and self-management skills). By developing these skills , students could adapt and adjust to everyday life situations and live to their full potentials and function properly in society.

2. The instructor helped her students to communicate effectively and get interpersonal skills by using many literacies such as : (information literacy, media literacy and visual literacy) . In information literacy, the students tried to find , evaluate, and use the selected information effectively in personal and professional ways. In the same time , the instructor helped her students to develop their informed and critical understanding of the nature of mass media ; and how to use many social media like Facebook, WhatsApp and some online blogs , to increase students' understanding and enjoyment of how media work to create digital products . Also by introducing visual literacy, the students would have the ability to understand and use images, sounds and videos to think , get information and experience and then learn new skills in life .

3. While writing different modes like (i.e. descriptive, expository and persuasive) , the instructor told her students many traditional and historical stories about successful figures that faced many problems in their life and overcome them by their willingness, perseverance and insistence. After that she asked them to write a similar stories and make a discussion to tell

each other about their experience of successes and challenges. Through this discussion, students expressed themselves, recognized their success and challenges and how they could overcome them. Here, they used interpersonal and communication skills, negotiation and refusal skills, empathy and cooperation and did that as a teamwork.

4. Developing the linguistic competence concerning (vocabulary and grammar) by using a digital literacy through digital storytelling, gave the students the ability to express some of their thoughts, feelings and to give their own explanations for a particular topic in English while writing descriptive and expository modes of writing. Consequently, they could get decision-making and critical thinking skills that includes problem solving, reflective thinking and self – management.

5. By using interpersonal dialogue and social interactions during story-telling classes and shared activities, teacher could scaffold students to reflective interpersonal thought, a story in which they reviewed and reflected on their personal statue concerning the learned values in the story.

6. The researcher was creating an atmosphere of love, friendship an cooperation inside the classroom by letting students perform several storyboard activities, played many roles in story cycles in pairs and groups to overcome stress and anxiety. It was clear that physical and affective states and the good moods of the students played an important role in raising their life-skills of coping and self-management as they build their self- esteem and self- confidence while choosing some digital images , adding music, narrating the events of the story and then taking an evaluating feedback. All these steps of creating digital story are proved to be effective in developing, promoting and raising the EFL students' life skills.

All these results are the same of those (Laud&Patel , 2017 ; Obiozor , 2010 ; Vanghan ,1993 ; Dornyei 2005 ; Gregersen , 2013 ; Ellis , 2002; Zaferiadou, 2001; Pardede ,2011; O'Dwyer,2013; and Cauthen2012).

6.1 Conclusions

In the light of the statistical analysis of the study results and their discussion, the researcher concluded that :

1. A digital literacy approach based program had a significant effect and a great development in EFL secondary school students' linguistic competence, writing modes and life skills.

2. It is noticed that a digital literacy approach based program enhanced students' literacy skills through using a digital story telling activities which could enable students to use the new technology in an effective way , especially when they are engaged with digital resources and useful editing tools to create quality stories.

3. During the program, it's noticed that the students had a noticable development in using some software programs such as : (word processing , spread sheet and Database). While using word processing, the students learnt to format, edit text , and import graphics. In spread sheet program, students learnt to define column , row and cell , collect and enter data , make and interpret a chart . Also by using the Database, they could define field , record , search, enter and edit data.

4. Through using digital multimodal texts and dictionaries, students' linguistic competence enhanced concerning (vocabulary and grammar) . As the students practiced to produce the synonyms and the antonyms , identify a suitable definition for each target word and also change the root of the word to a different part of speech by adding prefixes or suffixes . Concerning grammar, students could link among different tenses , identify future forms, use verbs with infinitive and ing form and generate different parts of speech.

5. Also , through the program, students could be able to differentiate between modes of writing which are descriptive, expository, narrative and persuasive and write them as a background knowledge for their digital stories. For many students, the program changed the way they feel about writing in English and how to write different modes, and converted them from traditional text to a digital one with images and sounds . Also those who had writing anxiety found it very easier and interesting to write in a free way and then narrate what was written in a digital style .

6. The group work and peer evaluation built positive and friendly relationships among students and between them and the instructor, as she created an educational atmosphere with digital interesting tools that helped them express their answers, discussions , feelings, and write them in a correct style with good structural rules and then convert them into digital video which narrated a digital story.

7. It is discovered that the use of digital literacy based program through digital storytelling has a positive effect on students' life skills. Also they could have a balance of three areas : (knowledge, attitudes and skills). Also during the treatment phase , they could have a group of cognitive, personal and interpersonal abilities that help them make informed decision, solve problems, think critically and creatively, communicate effectively, build health relationships , empathize with others, cope with and manage their lives in a healthy and productive manner .

8. It is clearly stated that there is a strong relationship among linguistic competence concerning (vocabulary and grammar) , writing modes and life skills. Thus, the program (a digital literacy approach based program) showed that it was very effective for enhancing and developing these variables.

6.2 recommendations

In the light of the results of the study, a number of recommendations are expected to be useful to :

EFL students

It is recommended that EFL students need to :

1. Use modern learning technology (i.e. digital stories, electronic portfolios and web blogs).

2. Practice story skills (oral , written and digital) to understand and communicate with each other in a digital way .
3. Increase their consumption of media; the internet, cell phones, tablets , video game, file – sharing , instant messaging and blogging to navigate their worlds.
4. Relate the ideas to their prior knowledge and life experience to get a deep learning.
5. Have the potential to combine the EFL linguistic and writing knowledge with 21st – century literacies.
6. Pay more attention to write in different modes, in order to be able to narrate events, describe feelings and places, explain facts and phenomena , set purposes, give different points of view and defend them highly to convince others .

EFL teachers

It is recommended that EFL teachers need to:

1. Be trained on how to use and apply a digital literacy approach based program to the educational process and the teaching situations.
2. Teach writing according to its modes (i.e. narrative, descriptive, expository and persuasive) .
3. Use different digital tasks and activities, storyline, storyboard and story cycle to activate student's prior knowledge.
4. Make the students the center of the learning process to participate actively in their learning.
5. Encourage students to take part in the evaluation of their actions and writings and give peer feedback.
6. Pay attention to students' life skills to get cognitive, personal, social and linguistic competence that enable students to adapt and adjust to everyday life situations and then use them in educational ones .

Curriculum Designers

It is recommended that curriculum designers need to:

1. Design software programs courses such as : (word processing, spread sheet and Database) and courses which explain how to use technological tools including cameras, microphones and video editing skills.
2. Design digital vocabulary and grammar courses which serve the digital writing and the multimodal texts.
3. Include students' digital learning logs as a kind of assessment in EFL writing modes.
4. Integrate the vigual literacy techniques as a component of the digital literacy with the curriculum development of the English courses.

6.3 Suggestions For Further Research

1. A similar study is needed with other student populations at different stages such as (college students and post graduate students) to investigate the effect of using a digital literacy based program to develop EFL linguistic competence, writing modes and life skills.
2. Future research studies can be conducted to explore the effectiveness of using a digital literacy approach based program to develop other English language skills , such as listening, speaking or reading.
3. Further studies can be conducted to determine the relationship between using a digital literacy approach based program to develop other psychological factors, such as motivation, attitudes, creativity, decision – making, or self- management .
4. An investigation of the effect of using digital story telling in developing writing skills and critical thinking.
5. An investigation of the effect of using the program based on visual literacy on the students' linguistic competence and attitudes towards English as a foreign language.
6. The effectiveness of using visual literacy techniques in developing learners' performance in the four skills of the English language.
7. Further studies can be conducted to determine the effect of English digital stories on the oral skills of EFL secondary school students.
8. Investigating the effectiveness of more recent technology applications in the EFL oral proficiency and motivation.
9. Investigating the relationship between digital storytelling and grammatical accuracy.
10. An investigation of the effect of using the program based on digital literacy based program to develop argumentative writing skills and self-esteem.

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