

The Effect of a Proposed Online Educational Platform in Manipulating Students' Reading and Writing Problems

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Abstract

The present study has aimed to identify the effect of a proposed online educational platform in manipulating students' reading and writing problems. The study followed the quasi-experimental approach. A number of 50 students were selected out of the students of primary school at Maimouna Bint Al-Harith Primary School who face problems in reading and writing. Such students made up the sample of the study for the second semester 2020/21. They were taught digital educational content through the prepared online educational platform. In order to achieve the objectives of the study, an achievement test (pretest – diagnostic test – posttest). It was designed of 24 questions, and its validity and reliability indications were pointed out.

The results of the study showed that there were statistically significant differences in the arithmetic mean of students' performance in the posttest due to the use of the online platform. The study concluded with several recommendations, including the adoption of the proposed educational online platform to manipulate students' reading and writing problems.

Keywords: Online educational platform, students' reading and writing problems.

Introduction

The scientific and technological revolution has brought about many positive effects on human life and the progress of human communities. Moreover, the rapid advancement in the digital world has accelerated the spread and availability of knowledge. Thus, educational technologies have become available to everyone as one of the most important tools that can be used in the educational process. In order to make benefit from these techniques in the educational process, it was necessary to make benefit from the development of educational terms and the development of the learning-teaching structure.

With the advent of the technological revolution in the field of information and communication, the so-called e-learning has emerged. It has brought about a qualitative leap in the educational process. E-learning is one of the technologies that support the educational process and take it from the didactic phase to the phase of creativity, interaction and skill development. It combines all electronic forms of teaching and learning. In doing so, it uses the latest methods in the fields of education, publishing and entertainment by adopting computers and its storage media and networks.

The rapid changes in the field of technology have led to the emergence of new types of learning and education, which further consolidated the concept of individual or self-education;

where the learner pursues his learning as per his energy, ability, speed of learning and according to his previous experience and skills (Hashim, 2017).

The digital educational content has been designed to suit the students. Furthermore, the educational content is divided into 7 regular sequential units, where the student cannot move to the next unit before completing the previous one. Since the content is structural, the goal can only be achieved through a regular sequence; that is, according to Skinner's theory of systematic programmed learning. The educational unit is designed of a video explaining the basic rule of the educational material, followed by an educational digital game to confirm the information and indirectly carry out the evaluation process. This is made possible by including electronic games, which are designed by the Word Wall application, along with an electronic file for writing. It is done by downloading the file or viewing the file and writing on an external paper. Hence, the problem of the study emerges as an attempt to identify the effect of a proposed online educational platform in manipulating students' reading and writing problems.

The Problem and Questions of the Study

Based on the current trend in language teaching, which emphasizes the integration of all language skills, highlighting its unity, benefiting from the relationship of its skills and its connection, and employing what the learner has acquired in developing his language skills, in order to achieve the desired goal of teaching the language; that is, to use the language effectively in reading and writing, speaking and listening as well as addressing the problems of learning (Al-Busays, 2011), and through the practical experience of a researcher and the training courses he presented to a number of teachers at primary schools and his dealing with students, a problem that students face difficulties in reading and writing has been noticed. Such a problem affects their academic performance. This problem is referred to in the results of (Kaur & Dogra & Sohi, 2014) which reported the existence of reading and writing problems among primary school students.

Thus, the present study seeks to answer the following question:

Are there statistically significant differences ($\alpha \leq 0.05$) between the arithmetic means of students' responses to the pre and post achievement tests, related to reading and writing skills, and attributable to the use of the proposed online educational platform?

Objectives of the Study

The present study has mainly aimed to identify the effect of a proposed online educational platform in manipulating students' reading and writing problems.

Significance of the Study

This study gains its significance from the fact that it seeks to identify the benefits and importance of online platforms for the educational process, as well as from its mission to identify the most common problems of reading and writing faced by the target group. It contributes to providing decision makers with the importance of using e-learning in addressing the reading and writing problems, faced by students, which have a significant impact on other academic subjects related to

reading and writing skills. Moreover, the presentation of the digital educational material for parents helps them to follow up their children and know their problems.

Conceptual and Procedural Definitions of the Study Terms:

This study included a number of concepts. To make them clear, for the sake of the study, some terms were defined conceptually and procedurally as follows:

Online Educational Platform: It is the interactive environment in (web technology 2) and is characterized by two systems: management and electronic content as well as communication with social media and other platforms (El-Sayed, 2015). It is **procedurally** defined as the reserved space on the Internet, with Web 2 technology, and is characterized by providing online interactive management, electronic content management and the use of multimedia elements (video, audio, image, text).

Reading and Writing Problem: It refers to the existence of a deficit, not related to mental abilities but to academic skills related to reading and writing (Al-Rousan, 2001). Procedurally, it is known as the difficulties that students of the age group (7-8) face in mastering the skill of reading and writing due to different reasons, including the lack of multiplicity of learning methods and the ignorance of individual differences.

Students: It is the age period that includes individuals from the middle childhood stage; known as the first learning stage (Nasser and Tarif, 2009). Procedurally, they are the first building block of learning process due to the fact that this age group has cognitive, physical, social and linguistic characteristics that differ from the rest of the stages, being the stage of learning to read, write, and learn behaviors and school excellence. It includes students of the second and third grades in the Hashemite Kingdom of Jordan.

Theoretical Background

The use of innovative technologies in e-learning, the rapid advancement in communication technology and the presence of the Internet have provided rich opportunities for building an online learning environment that is not limited to the transfer and transmission of information between the teacher and the learner, but also to interaction and the changing of roles in education. It includes electronic platforms, which are known as an interactive learning environment that employs Web 2 technology in a way that connects learning system management and content management with social media platforms such as Facebook, Twitter and YouTube. It enables teachers to set lessons, activities, and assignments to achieve educational goals, communicate with learners and assess their level through electronic tests. Moreover, it is conducted by dividing the students into groups to help them exchange ideas and content, and enables parents follow up their children during the learning process and brings about the best educational outcomes (Al-Enzi, 2017).

Basou (2016) pointed out the diversity of ways to use the platform, including synchronous and asynchronous methods within the process of communication. This is achieved through direct conversation between the learner and the teacher, between the learner and the system, the learner

and groups as well as through allowing interaction between those present, sharing content with everyone, sending to each other by e-mail, and dialogue discussion on the forum.

What distinguishes the online educational platforms, according to El-Sayed (2015), Al-Yateem, (2017) and Al-Enezi (2017) is that they depend mainly on online educational content and interaction between students, the system used and smart devices. They are also characterized by being ease to use for accessing the virtual class and registration. Besides, they require no great effort other than obtaining an e-mail and having the technical capabilities in a network dedicated to education and characterized by electronic archiving, keeping messages and educational applications to be easily accessed from several electronic devices; a computer or smart phone, in line with the explosion of knowledge and the ability to control the information needed by the learner through its availability on the platform and the absorption of large numbers of students. This depends on the space secured on the platform servers, in contrast to the capacity in normal education which limits the number of students, the geographical area of the classroom, in addition to the diversity of areas that can be placed and used across the platform; teaching languages, science, astronomy, mathematics, medicine, educational and training courses and cultures in order to enhance and develop the learner's scientific knowledge, through the use of multimedia (images, audio, video, texts) which are used as needed. These multimedia contents are presented in the form of direct lectures, including recorded lessons, seminars and discussion sessions.

Students are not affected by their large number, because many of the works are created electronically. Hence, online platforms pass through time and place (internationality). That is, the learner only needs a computer, a smart phone and an internet line, then he can sit in any place that suits him to follow his lessons. Repetition of content, when necessary, eliminates individual differences between learners by enabling the learner to repeat the online educational content as per his need and speed, until he masters and achieves the goal of the material. This contributed to addressing one of the educational problems, including the problem of reading and writing related to language, because language is an essential and important element in any community. No matter how advanced or developing these communities are, a language must be used to reflect their culture and civilization (Kaur, Dogra & Sohi, 2014). Being receptive and productive skills reading and writing occupy primary positions among Arabic language skills.

Reading is the gateway to learning in all fields. Besides, learning reading is not only for the sake of reading, but also for other types of knowledge. Writing, on the other hand, is a production of this knowledge, and an expression of the knowledge that the learner has acquired. If reading is the key to learning, then writing is learning itself. In addition to this, reading and writing are characterized by multiplicity of skills and complexity of operations (Al-Busays, 2011).

The importance of reading and writing, and the skills associated with them, emerges from the interest of many educators and researchers to search for their concept, steps and challenges they face. Through this, it has been found that some students face difficulty / or weakness in understanding and mastering the skills necessary for reading and writing. This is because of several reasons that may be related to the teacher, the method of teaching, or the curriculum. This was noticed by looking at the level of achievement of the first primary school students (Ashour,

Hawamdeh, 2007). It was stated in the study of Klages and others (Klages, et al, 2020) that reading is an important skill and it has many functions in the society. People need the skill of reading to read road signs, posters, prescriptions, menus, work orders, and continuity of daily life. Being an unnatural process that a person acquires by himself, the learner must learn to read, write and focus on the science of reading. Hence, illiteracy arises among learners because of a lack of appropriate reading education in the first years of school.

Abdel-Rahman and Mohamed (2002) and Al-Dulaimi and Al-Waeli (2005) believe that the Arabic language skills are related to the listening skill, which is the skill of interpreting and understanding the heard speech and being able to comprehend and analyze it. It is one of the most important reception skills which need attention and focus. It is useful for students to understand the instructions directed to them. Moreover, it occupies an important position due to its impact on artistic taste and acquisition of speaking skill, knowledge of vocabulary, terms and expression. It is also important for enhancing the speaking skill that expresses emotions and feelings and conveys ideas, meanings and beliefs from the speaker to others. It was stated that speaking expresses the extent of the student's ability to express, using vocabulary and terms in an appropriate formulation and in a safe manner that others can understand, by mentioning separate words and linking them with conjunctions with a high level of the student's linguistic development. Liu, Wang & Liu (2019) mentioned that the reading skill is the spoken speech of the written symbols and their correct pronunciation with their phonemic awareness. The writing skill, on the other hand, is related to the visual skills of what the learner sees of written letters and rewrites them.

Therefore, the objectives of teaching reading and writing are derived from the general objectives of teaching the Arabic language, especially with regard to the reading performance, either aloud or silent, and the written performance in terms of the content, style and form of writing. The student of the primary stage must utter words and read aloud to achieve good performance, take into account punctuation and appropriate fluency, with a good understanding of the text being read by adjusting the words he speaks correctly and distinguishing between the essential and the secondary in what he hears or reads. Moreover, he should know the etiquette of conversation, dialogue and debate to increase his general knowledge and information in various fields, and acquire basic skills in collecting information, and using references and library cards. He also should be able to express himself and his needs coherently while writing about himself in different contexts of life, taking into account the meaning and clarity, the coherence of sentences and accurately summarizing what he reads or hears, knowing the rules of writing, spelling and punctuation. Besides, he should be able to write and self-read while practicing his literary and linguistic hobbies with the desire to participate and integrate into linguistic activities. Such a student can taste the beauty of style in what he reads from the Holy Qur'an, Hadith, poetry, and artistic prose. This encourages him to love and cherish his language and the civilization of his Arab and Islamic nation (Curriculum Guidelines, 2020).

Writing is so important in the life of the learner. It is his means of expressing his thoughts and feelings, and it is an essential component of the functional integrative knowledge of reading and writing in the contemporary system. It was considered an aspect of healthy growth, and an

important tool for mental health. Hence, psychology used it as a method of psychotherapy. When the self reveals its innermost and psychological problems, mental and even physical health grows and improves. That is, expressing these problems takes the self out of the scope of repression, contributes to the development of endurance, and confronts other psychological problems (Al-Busays, 2011). Thus, any problem or difficulty faced by the student during the learning process leads to academic failure which is related to the skills of reading and writing. Corsini (1994) defined learning problems as the inability of the individual to benefit from the normal educational program without suffering from any physiological defect in the nervous system and normal mental abilities, but he has difficulty in communicating with others linguistically or expressively. Bishop and Snowing (2004) stated that children with dyslexia initially suffer from weak aspects of phonological reading comprehension, and at the same time they have a relative strength in oral language comprehension. Likewise, those who face reading difficulties must have indicators that distinguish this difficulty and show it through knowledge of the cognitive and linguistic development of vocabulary (Fallon & Katz, 202). Al-Qabbali (2004) mentioned that the most common problems are the deletion of some letters from the word, the deletion of the word from the text, the addition of some letters to the word, the addition of a word to the sentence, which is not originally present in the existing text, and the replacement of some words with their equivalent meaning, including the repetition of some letters or words without justification, or flipping letters and replacing them with other letters, weakness in distinguishing letters that are similar in drawing and shape, difficulty in tracing the written text and confusion in the order of lines.

Concerning the writing skill, it is known as a translation of ideas in the human mind and a means of communication between individuals and society (Al-Dulaimi & Al-Waeli, 2005). Those who face writing problems must have indicators which appear in their physical development and writing skills. Fadlallah (1995) mentioned that some students face a problem while learning and writing the letters of the Arabic language concerning changing the shape of the letter in several connected and separate cases, and changing its shape according to its position in the word. The student may face confusion whether during reading or writing, and the difficulty associated with letters with the three movements (fatha, damma, kasra), which are necessary for the correct pronunciation of words. Such errors include the error related to the reversal of movements of the three vowels (and changing the damma into و 'and' which has the pronunciation 'waw' in Arabic), (kasra to the letter ي pronounced as 'ya') and (the fatha to ا pronounced as 'alef'), and the difficulty in writing the forms of ت, pronounced as /t/. According to Beja (2000), Zayed (2006) and Ashour and Hawamdeh (2007), the students need several different ways to be able to master the reading skill. Moreover, several elements are involved in the educational process at this age. The weakness and decline in mastering language skills, including reading and writing, is due to several reasons, including the teacher who acts as a link between the educational content and the student, through methods and practices that he performs during teaching. The teacher may make mistakes during the teaching process, causing a problem that hinders the learning process. Such mistakes are related to not giving enough time and necessary exercises on abstracting letters, analyzing syllables and structures, and not conducting a diagnostic test that determines the language level of students at the

beginning of the school year. The teacher may also ignore their characteristics and abilities of his students and, at times, he may not adopt modern teaching aids and teaching strategies.

The teachers' failure to make modifications and observations from the field of teaching, and their use of slang during the process of training, bring about a number of learners' reading difficulties. Continuous listening to Arabic language in its correct pronunciation helps the student to master the correct listening and proper expression. Other reasons are related to the student, who is the recipient of the educational content from the teacher. Through his response and carrying out his duties during learning, the student may be exposed to factors that hinder learning, cause him problems represented by not mastering the educational content. The health status has a significant impact on the student's motivation to learn to read and write. That is, those who suffer from poor eyesight and hearing, they fail to develop their reading skill, while those who suffer from weakness in the hand muscles fail to develop their writing skill.

There should be a focus on the impact of social status (orphan, devastated family) and economic situation (poverty, extreme wealth), the percentage of educated people at home (illiteracy, school, university, postgraduate studies). Besides, the psychological state is one of the most important things that must be taken into account and taken care of and followed up, because it affects the student's emotions during reading and writing. Anxiety, confusion, fear, shyness, hesitation and introversion have a clear and effective impact on whether or not to read.

There are also content related issues, including the author who describes principles and evidence-based components that should be included in literacy instruction. It is important to take into account the construction of syllabus to develop skills that enhance the success of language and learning to read and write. Some topics in the curriculum lose the element of suspense and excitement, hence causing the student to lose his motivation to learn. Some contents are far from the daily needs, some are above the level of the student's mental and physical abilities, while some other contents are below the level of the student's mental and physical energies and abilities.

Therefore, the researchers prepared a diagnostic achievement test (pretest) to detect the extent to which students possess reading and writing skills, know problems and the way to address them. The problems were addressed through the prepared online educational platform. The main screen has a simple design that suits students. It is designed in such a way that avoids elements such as graphics and audio which may cause the students' to lose their attention. It is concerned with clarification of goals. The way of logging in and subscribing to educational content has two aspects; the first one is a subscription done by the student by entering his name, password and e-mail, while the second aspect is that the management does the process of subscription then it gives the students their login details. The student's 'user interface' included the group to which he joined, the educational materials he participated in, correspondence with the subject's teacher, and a button to upload attachments like images and audio files.

Previous Studies

The following is a presentation of the previous studies that the researchers have read. They are arranged chronologically, from the newest to the oldest:

Rosidah Zakiyatu(2021) conducted a study entitled "Using E-Learning Methods in Teaching Listening for Fifth Class Students in Governmental Primary School". This study aimed to know the use of e-learning methods by revealing the pitfalls and advantages of using e-learning methods in teaching listening to fifth-grade students in the government primary school. The researcher used the qualitative research, where the researcher came directly to the research site and she made observations on the topic of the research through participation in the field of research. Through this technique, data was obtained and statistically analyzed. The results showed that the success of e-learning is supported by the presence of more interaction between teachers and students, between students and various educational facilities, and between a student and other students, and the presence of active learning patterns in this interaction.

In this context, a Study was conducted by Abdul Karim Wahba, Fatima, Ali Al-Jarrah, & Abdul Mahdi in (2021). It is entitled "Designing an educational platform (Edmodo) for teaching Arabic and measuring its impact on academic achievement and in developing pivotal thinking skills for third grade primary school students in Jordan". The study followed the quasi-experimental approach to achieve its objectives. Moreover, the study sample included (37) male and female students, who were selected from the Asad bin Al-Furat Elementary Mixed / Secondary School of the Marka District Directorate, in the capital, Amman, and in the first semester of the year 2019/2020. They were divided into two groups; experimental and controlling groups, where the experimental group consisted of (18) male and female students who were taught through the Edmodo platform as per the flipped learning strategy, while the controlling group consisted of (19) male and female students who studied according to the traditional method. In order to achieve the study objectives, two tools were designed: an achievement test for testing the Arabic language skills, and a measure of pivotal thinking skills. The validity and reliability of the two tools were verified by appropriate methods. The results of the study reflected that there were statistically significant differences in the academic achievement and the level of pivotal thinking skills between the two groups in favor of the experimental group. The study recommended the activation of the Edmodo platform in teaching Arabic, conducting more empirical studies on its use in teaching other educational materials, and developing teachers' ability to effectively employ it in the educational process through continuous and intensive courses. Klages et al.(2020) stated, in their article entitled "Linking science-based research with a structured literacy program to teach students with reading disorder", that reading is an important skill and has functions in society. People need to read road signs, posters, prescriptions, restaurant menus, and job applications to practice their daily lives. Unfortunately, approximately 20% of the population suffers from dyslexia, and this means that they will struggle to learn to read. Evidences support that learning to read is based on science-based strategies that are systematically and explicitly taught to all students, especially those with dyslexia. Moreover, literacy, among learners, arises from a lack of appropriate reading instruction in the early school years. Since reading is not a natural, self-acquired process, reading and writing must be taught by focusing on the science of reading. Teaching reading and writing should include all elements and methods in a comprehensive research-based programme. One of these programs is:

The Apple Group Connections which is an effective methodology for addressing various reading problems such as dyslexia and addressing the reading outcomes of this skill.

Another study was conducted by Nadia Al Saidi (Al Saidi, 2020), entitled (A program to improve reading difficulties and its impact on self-esteem among primary school students). This study aimed to provide a training program to improve reading difficulties for children in the primary school stage and its impact on improving their self-esteem. The program is designed to provide children with the necessary basic skills that enable them to read words quickly, accurately and easily, thus contributing to their education and benefiting from their potentials. The sample of the study consisted of (20) students (the second and third grades of primary school), who have reading difficulties and suffer from low estimation. It is divided into two groups (experimental group and controlling group). Moreover, it was taken into account that the age group should be from 6-9 years, and that the difficulties in reading research are neural and not due to a lack of training or experience. Besides, parity was achieved between the two groups in terms of chronological age and intelligence level. The results indicated the effectiveness of the training program, which in turn contributed to the treatment of children's learning of reading, hence bringing about an improvement in the self-esteem of these children.

In this connection, Wang & Liu (2019) conducted a study entitled "Deficiency of visual search among Chinese children with dyslexia." This study focused on visual searches, and it tested the possibility of finding visual search deficits in Chinese children with dyslexia. Much importantly, the researchers tested the relationship between dyslexia and different types of visual searches to determine whether the deficiencies were specific to some visual searches and not to others. Dyslexic children, of the same age and school, completed all relatively passive and effective search tasks. The results showed that children with dyslexia were generally weaker in visual searches, although there was a greater lack of passive searches than active searches. Moreover, the working memory and the nonverbal IQ were taken into account, while ensuring that the children were fully aware of the sounds of letters and the way they are pronounced. This study concluded that the visual search deficit concerning dyslexia is a global issue, across alphabetic and logographic writing systems (old writing systems). The results shed light on the importance of conducting further studies on the interest in reading that depend on the reader's prior knowledge and its importance.

It is worth noting that what is already known about this topic is that there is a correlation between reading difficulties and poor visual-spatial attention, so that dictation-related dyslexic readers show deficiencies in visual searches, especially ineffective searches. It was also found that visual skills are especially important for reading in Chinese; a writing system known for its visual complexity and a lack of matching characters with their sounds. What this research adds is that Chinese children with dyslexia showed deficits in visual research compared to other children.

Dwekat (2017) conducted a study that aimed at examining the impact of a computerized training program on the achievement of students with learning disabilities, who have difficulties in reading and writing, and revealing their attitudes towards the proposed program. The study used the experimental method. Moreover, the study sample consisted of (30) male and female students of the

sixth grade who suffer from learning difficulties. They were intentionally selected from Mabarrat Umm Al Hussein, SOS Village, Amman Children's Care Home, Martyrs' Families Care Society, and Hamza bin Abdul Muttalib Society. The sample was randomly divided into two groups: (15) male and female students in the control group, and they were taught in the traditional way, and (15) male and female students in the experimental group, and the computerized training program was applied on them. An achievement test of reading and writing skills was conducted on the members of both the controlling and the experimental groups. Moreover, an attitude scale was applied to the experimental group to reveal their attitudes towards the computerized training program. The statistical analysis of the data revealed an effect of the training program in teaching reading and writing on the achievement of the sixth grade students with learning difficulties. There were statistically significant differences in the achievement of sixth grade students with learning difficulties due to the method of teaching. Such differences were in favor of the experimental group that received a computer-based education. The results also showed that there were statistically significant differences between the averages of the pre and post tests of the experimental group concerning the attitude scale, due to the effect of the computerized educational program that was presented to the experimental group.

In an article entitled: "The Linguistic Problems of Students of Tawheed College in Turkey in Teaching Arabic" (ACAT & Yaşar, 2016) revealed that the Arabic language has gained importance from external factors. The religious dimension comes first among these factors. The Holy Qur'an, which non-Arab Muslims strongly believe in, as is the case with Arab Muslims, was revealed in the Arabic language. Moreover, the Prophet (Muhammad, may God's prayers and peace be upon him) used Arabic language to address his companions. Arab and non-Arab Muslims have focused more on Arabic, the language of Islam, in order to better understand the Qur'an and Sunnah (the Hadith of the Prophet). In countries where Arabic is not spoken as a mother tongue, the difficulties associated with teaching Arabic are divided into non-linguistic and linguistic difficulties. The non-linguistic difficulties are often represented by problems related students, teachers, textbooks, the classroom environment, and teaching methods. On the other hand, linguistic difficulties are difficulties in reading, writing, and comprehension in addition to phonological, morphological and grammatical difficulties. The level of difficulties arising from the language itself can be attributed to societies where Arabic is not spoken as a mother tongue. In this article, the difficulties arising from the language itself and their causes were discussed along with suggested solutions for such difficulties and problems. It concluded with highlighting the importance of developing language skills for students of monotheism, in addition to trying to suggest a better teaching of the Arabic language.

Another study in this respect was conducted by Kaur, Dogra & Sohi (2014). It was entitled the prevalence of learning difficulties among school students. In its introduction, the researchers pointed out that modern society considers mastering basic academic skills such as reading, writing and arithmetic as a necessary prerequisite for success in school, for the work environment, and for the whole community. Despite this, a large number of children face learning difficulties. This means a disorder in childhood represented by difficulty in performing certain skills such as reading or

writing, which are prevalent in individuals with natural intelligence. The study aimed at early detection and evaluation of learning difficulties among students in order to plan and provide the necessary services for this. A one-variable descriptive research design was used to achieve the study's objectives. The researchers designed the tool of the study; a questionnaire containing tests for a list of learning difficulties, modified by (National Learning Disabilities Center). The center was founded in 1977 by Pete and Carrie Rozelle as an institution that has been concerned with children with learning disabilities. Part 1 includes the socio-demographic details, while part 2 embodies the checklist and it includes a total of 40 items, reading 15, writing 12 and mathematics 13. The study was applied to a sample of 500 fifth- to eighth-grade students in two secondary schools in Amritsar, Guru Teg Bahadur Public School and Guru Harkirishhan International School, Amritsar.

The results of the study showed that the existence of mild learning difficulties among school students was 17.2%, and that the percentage of severe learning difficulties was 2.4%. Moreover, 29.6% of the students have slight learning difficulties in reading skill, 1.2% of the students face severe learning difficulties in reading skill, and almost half of the students (44.4%) face slight learning difficulties in arithmetic skill, while 6% have learning medium difficulties in the arithmetic skill. According to the study results, most of the students have more difficulties in the skill of reading than writing and arithmetic. The study concluded that the existence of learning difficulties is common among children who attend school. Besides, the skills most common among students with learning difficulties are reading and arithmetic skills, and that there is a need for early detection of learning difficulties among students and the provision of remedial measures in order to provide special education for the affected students. Green and others (2009) conducted a study entitled "Deficiency of visual search among Chinese children with dyslexia". This study was applied on students of the age group 15-16 years from Oslo, Norway, where tests were conducted in order to detect dyslexia (disorder of reading) in learners. Self-reported reading/writing difficulties and dyslexia symptoms were studied using the Dauphin Dyslexia Test. The existence of self-reported dyslexia took the percentage of 8.2%, while that of severe or moderate reported dyslexia was 10.4%. The group with self-reported dyslexia had the lowest mean values on the Dauphin test compared to the group without dyslexia (a reading disorder). As a result, further research is needed to explore the accuracy of the Dauphin test as a tool for screening for symptoms of dyslexia (a reading disorder) among young Norwegian adults.

Comments on the Previous Studies:

By reviewing previous studies, and by extrapolating some of the curricula used in them and some of their objectives, their results and tools, this study agrees with most of the previous studies concerning dealing with reading and writing problems, and the use of software and websites. Moreover, it differed concerning the target group and the way of manipulation. Some of these studies are Abdul Karim Wahba, Fatima & Ali Al-Jarrah (2021), Rosidah (2021), Fallon & Katz (2020), Klages, et al. (2020), Al Saidi (2020), Liu, Wang & Liu (2019) and Dwekat (2017), ACAT & Yaşar (2016) Kaur, Dogra & Sohi (2014) and Green, et al. (2009). However, this study was distinguished from other studies with respect to dealing with the variable of the effect of the online

educational platform in manipulating the problems of reading and writing through digital educational content specific to students of the basic stage.

Methodology of the Study:

The researchers used the quasi-experimental method, due to its relevance to the nature of the study and the achievement of its objectives.

Sample of the Study:

The study sample consisted of 50 students of the age group (7-8 years), the second and third grades, at Maimouna Umm Al-Momineen Elementary Mixed School in Amman, the Hashemite Kingdom of Jordan. They were selected intentionally, after detecting reading and writing problems through the diagnostic test. They formed one group and was taught using the online educational platform to address the problems of reading and writing. Moreover, the study was conducted during the second semester of the second academic year (2020/2021).

The Study Tool:

In this study, the researchers used the achievement test to identify the effect of the proposed online educational platform in addressing reading and writing problems faced by students of the target group (7-8 years). The researcher prepared a test based on the sub-skills and objectives of teaching reading and writing for the first basic stage. Moreover, the educational goals expected to be achieved were determined; the measurement of reading and writing skills of students of the age group (7-8) years. The digital educational content was also prepared. A test of (24) questions was designed. The test included two areas; reading skill and writing skill. The mark's giving depended on the number of paragraphs, and the final test mark consisted of (84) marks.

Validity and Reliability of the Test:

To test the validity of the test, it was presented in its initial form to a group of arbitrators; faculty members specialized in curricula and methods of teaching Arabic language, rhetoric, literary criticism, grammar and morphology. They were professors at Jordanian universities, Iraqi universities and Saudi Arabia, and educational experts working for the Ministry of Education and the UNRWA. This was to judge the suitability of the test questions for students, the quality of the language, and the extent to which the questions belong concerning the level under which they fall, or adding other skills, and assigning weights to the Educational Development Center, UNRWA(2018). The test was modified in light of the referees' observations, and no paragraph of the test has been deleted.

In order to ensure the stability of the test, and the indicators of the achievement test, the method of Test-Retest was used, so that the test was applied twice with a time difference of three weeks on an exploratory sample from the study population and outside the study sample. Furthermore, the reliability coefficient between the two applications was calculated by Pearson correlation. The repetition coefficient of the achievement test reached (0.90) for the total test questions (24). This indicates that the test has a high degree of stability and can be relied upon in the field of the study, achieving its purpose and trusting its results, depending on what came in the Nanley scale, which adopted the value of (0.70) as a minimum for stability.

In order to test the indicators of structural validity for all the achievement test questions, the questions were applied to a pilot sample consisting of the study population, from outside the study sample, and Pearson correlation coefficients were calculated between the score of each question with the total score of the test. Table (1) illustrates this.

Table (1)
 Pearson's correlation coefficients for the achievement test

Question	Pretest		Posttest	
	Correlation Coefficient	Significance Value	Correlation Coefficient	Significance Value
Reading and distinguishing letters	0.62**	0.000	0.29*	0.045
Reading letters with movements	0.58**	0.000	0.32*	0.022
Reading vowels	0.52**	0.000	0.34*	0.016
The type of the letter	0.67**	0.000	0.63**	0.000
Complete the word with the appropriate syllable	0.52**	0.000	0.44**	0.001
Writing letters by heart	0.70**	0.000	0.65**	0.000
Writing letters with movements by heart	0.76**	0.000	0.65**	0.000
Syllable writing	0.69**	0.000	0.65**	0.000
Write the appropriate nunation	0.64**	0.000	0.51**	0.000
Transfer to Al-Fath nunation	0.61**	0.000	0.63**	0.000
Reading a sentence	0.42**	0.001	-	-
Writing the accent	0.58**	0.000	-	-
Deconstruction into letters and syllables	0.50**	0.001	0.47**	0.001
Construction of syllables	0.60**	0.000	0.59**	0.000
Forming more than one word from a group of letters	0.40**	0.008	0.34*	0.013
Fill in the blanks with (ت/ة/ة/هـ/هـ)	0.60**	0.000	0.52**	0.000
The (al)	0.51**	0.000	0.50**	0.000
Writing words	0.64**	0.000	0.56**	0.000
Arrange vocabulary in a sentence	0.46**	0.006	0.54**	0.000
Dictation	0.67**	0.000	0.60**	0.000

Punctuation Marks	0.37**	0.009	-	-
Read the text and answer the questions	0.41**	0.000	0.61**	0.000

* Statistically significant at the significance level (0.05).

** Statistically significant at the significance level (0.01).

It is clear from Table (1) that:

- Pearson's correlation coefficients between the score of each question with the total score of the pre-achievement test were all statistically significant at the significance level (0.01), where the minimum correlation coefficient was (0.37), while the upper limit of the coefficients was (0.76). Accordingly, all questions are internally coordinated. This proves the structural validity of the pre-achievement test and its appropriateness to achieve the objectives of the current study.

- Pearson's correlation coefficients between the score of each question with the total score of the post-achievement test, most of which were statistically significant at the significance level (0.01), and some of them were statistically significant at the significance level (0.05). Moreover, two non-statistically significant values were related to the third and twelfth question correlation coefficients. Three worthless correlation coefficients are the questions correlation coefficients (13, 14, 23) because all students had equal marks for these questions, and the minimum correlation coefficients were (0.09), while the upper limit of the coefficients was (0.65).

- Hence, most of the questions are internally coordinated. This proves the structural validity of the post-achievement test, which is appropriate to achieve the objectives of the current study, after deleting the paragraphs (3, 12, 13, 14, 23).

Table (2) is a presentation of the values of these coefficients for the pre and post tests

Table (2)

Difficulty and distinction coefficients for achievement test items (pre- and post-test)

Field	No.	Article	Pretest		Posttest	
			Difficulty Coefficient	Distinction Coefficient	Difficulty Coefficient	Distinction Coefficient
Reading Skills	1	Reading and distinguishing letters	0.80	0.57	0.98	0.23
	2	Reading letters with movements	0.76	0.53	0.99	0.28
	3	Reading letters with nunnitions	0.62	0.59	0.99	0.06
	4	Reading letters with accent	0.65	0.47	0.87	0.26
	5	Reading words	0.64	0.44	0.98	0.22
	6	Reading sentences	0.56	0.39	1.00	0.00
	7	Fill in the blanks (ت/ة/ة/ه/ه) with	0.58	0.56	0.94	0.45
	8	Read text and answer questions	0.35	0.43	0.68	0.53
Writing Skills	9	Appropriate letter shape	0.63	0.64	0.74	0.56
	10	Complete the word with the right syllable	0.67	0.49	0.94	0.38
	11	Write letters by heart	0.62	0.64	0.92	0.58
	12	Write letters with movements by heart	0.65	0.71	0.92	0.58
	13	Write the syllable	0.56	0.64	0.92	0.58
	14	Write the right nunnition	0.47	0.59	0.87	0.44
	15	Transform to Fatha Nunnition	0.48	0.56	0.84	0.57
	16	Write the accent	0.53	0.54	1.00	0.00
	17	Deconstruct into letters and syllables	0.58	0.46	0.89	0.40
	18	Construct syllables	0.58	0.57	0.75	0.49
	19	Forming more than one word from a group of letters	0.44	0.35	0.62	0.29

	20	The (al)	0.47	0.46	0.93	0.43
	21	Write words	0.45	0.60	0.82	0.50
	22	Reorder words in a sentence	0.51	0.42	0.90	0.49
	23	Dictation	0.27	0.61	0.73	0.50

Table (2) shows that:

-Concerning the pre-achievement test, it is clear that the coefficients of difficulty ranged between (0.27 - 0.80), while the coefficients of distinction ranged between (0.34 - 0.71).

-As for the post achievement test, it is clear that the coefficients of difficulty ranged between (0.62 - 1.00), while the coefficients of distinction ranged between (0.00 - 0.59). Hence, it is accepted for study purposes.

Results of the Study and Discussion:

Results related to answering the study question:

To answer the study question, "Are there statistically significant differences ($\alpha \leq 0.05$) between the arithmetic means of the students' responses to the pre and post achievement tests of reading and writing skills, due to the use of the proposed electronic educational platform?", a comparison between the mean scores of the students in the pre and post tests and their calibration was done by applying the paired sample t-test. Table (4) shows the results of this test.

Table (4)

#	Question	Question Score	Test	Arithmetic Mean	Standard Deviation	t Value	Statistical Significance
	Test (Pre and Post)	84	Pretest	39.76	10.07	-27.18	0.00
			Posttest	61.3	5.38		

Table (4) shows that there are apparent differences between the arithmetic means in the achievement test (pre-post tests). It is obvious that there are statistically significant differences at the significance level ($\alpha \leq 0.05$) between the students' achievement scores in the pre-test, where the arithmetic mean of the pre-test was (39.76), with a standard deviation (0.071). Moreover, the differences were in favor of the post-test, as the arithmetic mean of the post-test was (61.3), with a standard deviation of (5.38), where the difference was with a t-value of (-27.18) and with a statistical significance (0.00). This indicates that the introduction of the proposed online educational platform to address the problems of reading and writing contributed significantly to increasing student achievement. This indicates that the nature of the digital educational content and the method of teaching through the proposed educational electronic platform have been so helpful. It was found that the student possesses the skill of recognizing letters and distinguishing them, but there is a problem of distinguishing between the name of the letter and its sound, through what the student learns from the teacher and the follow-up of parents, for parents do not know the foundations of the

correct teaching of reading and the difference between the name of the letter and its sound. The results showed that the student does not distinguish between the sound length and its movement. When reading the student shortens the length of the sound in letters of extension and vice versa. This is due to the difficulty of distinguishing between them. Through the digital educational video, the student can explain the difference between them in reading, writing. Moreover, the training through digital games helps the students to distinguish between the letter and its movement and between the letter and other letters. This has contributed significantly to the student's mastery of the reading skill. The results also showed that the gradation in the digital educational content helps the student to become able to self-learn with simple training on the platform. It enables the student to correspond with his teacher; hence supporting the student's self-learning which may not be possible in the traditional teaching.

- The results of this study agree with the results of the study of Dwekat (2017) that there are statistically significant differences in favor of the experimental group that received computer-based instruction. It also agrees Klages et al. (2020), according to which reading is an important skill and has functions in society and that reading is a natural process that acquires itself in learning appropriately during the early years. It also agrees with Klages's notion that the online educational platform contributes to transforming individual differences between students into differences in time, as everyone achieves the goal at different times.

Recommendations and Suggestions:

Based on the results of the study, the researchers recommend the following:

- 1- Decision makers should adopt the activation of the proposed online educational platforms in the educational process.
- 2- New methods and strategies should be developed for teaching Arabic, in a digital way, along with various educational materials other than the Arabic language.
- 3- It is important to train teachers and parents on the use of digital educational platforms, teaching methods and managing digital content. They should also be trained to adopt the mechanism for following up on students, and not only providing the material.

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