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The Effect of a Play-Based Program on Improving Word Analysis Skills in English Language among UNRWA EFL Jordanian Fifth Basic Grade Students

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Abstract:

The current study aimed to investigate the effect of using a play-based instructional program on improving students' skills in word analysis in English language. The participants of the study were (60) fifth-grade male students who studied English as a foreign language at UNRWA schools in Amman, Jordan. A pre-post test was utilized to collect the data. The results of the study showed that there were statistically significant differences at ($\alpha \leq 0.05$) in the students' mean scores on the word analysis post-test attributed to the use of play-based instructional program. Utilizing play-based learning to enhance students' level in word analysis skills was recommended.

Keywords: educational games, play-based learning, word analysis, UNRWA EFL students.

أثر برنامج قائم على اللعب على تحسين مهارات تحليل الكلمة في اللغة الانجليزية لدى طلاب الصف الخامس الأساسي بمدارس الأونروا في الأردن

الملخص:

هدفت الدراسة الحالية الى بحث أثر استخدام برنامج قائم على اللعب على تحسين مهارات تحليل الكلمة في اللغة الإنجليزية لدى طلاب الصف الخامس الأساسي بمدارس الأونروا في مدينة عمان في المملكة الأردنية الهاشمية. حيث بلغ عدد المشاركين في الدراسة (60) طالبا. وقد طبق الباحث اختبار قبلي/بعدي لجمع البيانات. أظهرت نتائج الدراسة فروقا ذات دلالة احصائية عند مستوى دلالة (α <0,05) لصالح المجموعة التجريبية في مهارات تحليل الكلمة تعود لاستخدام البرنامج التعليمي القائم على اللعب. وقد أوصى الباحث باستخدام التعلم القائم على اللعب لتحسين مستوى الطلاب في مهارات تحليل الكلمة باللغة الإنجليزية.

كلمات مفتاحية: الألعاب التربوية, التعلم القائم على اللعب, تحليل الكلمة, طلاب الأونروا.

Introduction:

Developing learners' ability in word analysis skills is a cornerstone for successful word decoding (Cunningham & Stanovich, 1998). If learners failed to decode words mentioned in the text, this can hinder text comprehension (Weakland, 2013). Therefore, the processes by which readers develop their ability in word analysis simultaneously need to be reconsidered. A proper word analysis requires having the ability to make serviceable connections between orthographic and phonetic systems of the word in order to fully read and comprehend it (Mc Shane, 2005). Having achieved this, the learner might become more able to read and understand words within a text smoothly as a result of successful letter-sound associations.

First-hand experiences are the most effective ways to learn (Plant, Addysg & Sgiliau, 2008). Fundamentally, learning involves gaining knowledge and life experience to be applied in various life situations and this is can be attained, in many cases, through playing (Steinkuehler, 2010). Teaching through play-based curriculum is not only theoretically reasonable and practically feasible, but also seems to be beneficial for the fulfillment of the intended outcomes, the benefits of play-based approach can be highly seen especially if it is compared to a more 'strictly teacher-driven approach'(Oers & Duijkers, 2013). There are three essential components for better word analysis, they are learner's alphabetic knowledge, his/her morphological and phonological awareness (Allaith, 2009). More specifically, a good word analyzer is a one who can recognize the orthographic writing system and make a successful connection between letters and their sounds to decipher the meaning of the unfamiliar words in the reading text.

In the Jordanian teaching and learning context, it is declared in the Teacher's Book in all *Action Pack* series that teaching and learning practices should be executed in an atmosphere that is full of enjoyment, excitement, and entertaining activities. However, many EFL teachers teach EFL curricula, in general, and word analysis skills, in specific, traditionally, that is, they teach vocabulary mentioned in the texts by memorization, excessive drilling, or even by translating them onto Arabic. The context in UNRWA schools in Jordan is not different from other Jordanian teaching and learning contexts. In such contexts, EFL learners encounter a serious challenge in having sufficient opportunities to use the target language due to the huge numbers of students inside the classroom. Playing is helpful in learning vocabulary as it typically encompasses pleasant rivalry and build supportive learning setting; accordingly students have a chance to communicate and learn in a stress-free manner. Therefore, investigating the effect of educational games on EFL Jordanian context may support earlier claims concerning the value and the effectiveness of using games to develop students' word analysis skills.

Statement of the Problem

Based on the researcher's experience in teaching English language as a foreign language, it was noticed that many EFL students face many struggles while learning vocabulary, that is, students show certain difficulties in decoding words while reading instructional texts in a way that affects reading comprehension. According to the knowledge of the researcher, most of his EFL colleagues attempted to solve this problem by using traditional strategies (i.e. memorizing vocabulary in isolation, repetition or translation) which in most cases can be boring in a way that doesn’t attract students' attention and cause low motivation. The researcher believed that using games in vocabulary instruction might both increase students' motivation and facilitate their word decoding skills.

The Purpose of the Study

The purpose of the study was to investigate the effect of using play-based instructional program on UNRWA fifth grade students' word analysis skills in EFL classes.

The Question of the Study

This study aimed to answer the following questions: Are there any statistically significant differences at ($\alpha \leq 0.05$) between the students' word analysis sub-skills attributed to the play-based instructional program on the post-test mean scores?

Significance of the Study

The findings of the current study might be beneficial for many teachers who seek to create motivated EFL learners inside and outside the classroom. Furthermore, the findings can enrich and illuminate teachers' practices when teaching vocabulary as this study might provide them with feasible and convenient solution for common problems. Such problems comprise students' weakness in decoding words in the reading texts, their inability to obtain comprehension due to the lack of word recognition, low motivation, lack of participation, and being incurious about the vocabulary mentioned in their lessons. The researcher expects that using educational games while teaching vocabulary might contribute in both presenting an effective way to better words decoding, and creating more joyful, pleasurable, and stress-free learning atmosphere.

Definition of Terms

Educational Games: is a type of games that utilizes physical or verbal games in learning activities (Squire, 2008). This kind of playing is utilized in order to promote learning through using objects and hands-on interaction (Zuckerman, 2006). In this study, this term refers to a method of teaching that utilizes verbal and physical games (see the Appendix A) to help learners to develop their word analysis skills.

Play-Based Learning: is a type of learning that capitalizes on students' natural sense of inquiry, discovery, and hands-on exploration to develop their literacy, numeracy and social skills. Within this learning, students like to be involved in the activities (games) because such learning is usually in congruence with their interests (Jones, 2016). In this study, this concept referred to a method of learning that utilized a set of educational games to enhance the play-based group's level in word analysis skills.

UNRWA EFL Students: in this study, this term refers to students who learn English language as a foreign language in basic schools in Jordan which are run by United Nations Relief and Works Agency for Palestine Refugees in the Near East.

Word Analysis: Bush and Huebner (1970, p.72) defined word analysis as "a way of analyzing the printed word in order to determine its pronunciation and meaning by identifying its meaningful parts-roots, inflectional endings, prefixes, suffixes and syllables". In this study, it is the ability to analyze words properly, identify their syllables, and manipulate with their letters so that learners can articulate the encountered words and identify their exact contextual meaning. The word analysis skills taught in this study were: to match beginning blends with word endings, to learn different vowel patterns that correspond with one vowel sound, to match words that have the same ending word pattern (rime), to distinguish between short and long vowel sound, to review different word patterns studied during the week, to decode unfamiliar words that contain consonant blends, to read words that contain silent *e* word patterns, to use students' knowledge of word parts within larger

words to decode unfamiliar text, to read irregular, high-frequency words (sight words) correctly, and to create words by manipulating with letters.

Limitations of the Study

The researcher faced many difficulties in designing and implementing the instructional program due to the fact that he didn't have previous experience in designing or implementing games for educational purposes. Therefore, he read some related books and articles to have enough experience to conduct the study. Another difficulty that faced the researcher was the length of time for implementing each game, that is, some games needed more time to be implemented due to the big number of students. There were other challenges that faced the researcher such as the time and effort spent in preparing the materials and tools that were essential to conduct each game, in this regard, the researcher prepared the needed tools before each game, he had to prepare them using different size of cartons, paper with different colors and in an attractive way. Additional limitations for the study were the grade, the place, and the time in which the program was implemented in, to illustrate, the researcher believed that the findings of the study were limited to EFL male fifth-grade students taught at UNRWA schools in south Amman, Jordan, in the scholastic year 2018-2019. Therefore, the finding of the study cannot be generalized to other grades, places or time.

Theoretical Background

Word analysis is viewed by many educators as a continuous process that moves from recognizing printed symbols, to letter-sound association, to phonetic decoding, and eventually to text comprehension (Perfetti, Goldman, & Hogaboam, 1979). Automatic word recognition is a very critical component for reading comprehension skills (Weakland, 2013). Additionally, expanding readers' knowledge in word analysis skills gives them a chance to both decode complex vocabulary in more complex reading materials, and utilize context clues to uncover the meaning of new words successfully (Cunningham & Stanovich, 1998). In a report conducted by the United States National Reading Panel (2000), it was found that struggling readers need to improve themselves in sub-skills like alphabetic principle, phonological decoding, fluency, and reading comprehension in order to enhance their reading proficiency.

Bush and Huebner (1970, p.72) defined word analysis as "a way of analyzing the printed word in order to determine its pronunciation and meaning by identifying its meaningful parts-roots, inflectional endings, prefixes, suffixes and syllables". McShane (2005) stated that word analysis necessitates figuring out the relationship between pronunciation and spelling, more specifically, between letter-sound principles to decode letters, syllables, or unknown words. He believed that word decoding', 'phonics', and 'word analysis' are synonyms for the same process, he stated that each of which is a process used by the reader to figure out the relationship between pronunciation and spelling to decode letters or syllables of unknown words. In his opinion, word analysis is a very essential process that helps beginning readers to read with comprehension.

Two aspects are essential for efficient word analysis and recognition, they are accuracy and speed. Readers need accuracy to decode letters allocated in written words correctly. As for speed, readers should be able to analyze and decode words rapidly without pausing, otherwise, text comprehension might be affected negatively (Adams, 1990). Stanovich (1980) indicated that skilled readers are able to grasp large portions of the reading text and are proficient at recognizing 'context-free words'. Rapid, effortless, and accurate word recognition refers to automaticity (LaBerge & Samuels, 1974) which can be strengthened by repeated exposure to different words in different

contexts (Adams, 1990). This automaticity enables readers to focus on the essential text components instead of pausing at a certain point thinking about the meaning of the unknown words and struggling in understanding the text (Cunninghan and Stanovich, 1998). Another primary function of automaticity is to decrease the time and effort of cognitive energy that are spent in identifying unfamiliar words giving more chance to internalize the reading text and obtain comprehension (Rasinski & Padak, 2008; Stanovich, 1986). Readers may attend to unfamiliar words too long leading to loss in meaning, Folse (2007) argued that poor readers tend to fixate too long on unfamiliar words instead of carrying on reading and getting comprehension.

In primary grades, the correlation between word recognition and reading comprehension is about 0.80. The reason behind such strong correlation stems from the following factors: (a) in early grades, the structure of sentences presented in reading texts are simple, (b) in this stage, repeating different word patterns is very frequent, (c) the number of the encountered words are limited especially if they are compared to upper grades, finally, (d) the words mentioned in early grades texts are often referred to concrete concepts which can be seen, touched, heard, used and repeated frequently. Nevertheless, as readers grow up and the reading texts shift toward using more abstract concepts and dealing with more diverse language, the percentage of the aforementioned correlation is reduced to nearly 0.65 (Harris & Sipay, 1990).

Now, how do beginner readers develop their graphic cues and be able to spell and, later on, to read?. According to Ehri (1987), readers at the primary stages, identify words by relying on visual and contextual clues, next, in a further stage; they start to become more aware of letter-sound associations, in this initial stage, readers engage reading process by retrieving remembered associations between a limited number of letters and their sounds from their memory. In a more advanced stage, when decoding skill become more mature, the readers start to analyze and spell full words and store them in memory as phonemic symbols. Word analysis skills, at this stage, start to have a greater influence upon how a reader may pronounce words, how he/she judge spoken word rhymes, and what sounds he/she think are in words. But, how do learners identify words while reading a text? When efficient readers read a text, they do not jump over words and focus on unfamiliar ones only. Rather, they tend to fixate on the most of words mentioned in the text. Conversely, less efficient readers tend to fixate their eyes on every single word several times (Carpenter & Just, 1981). According to Goodman (1970), when readers read, they access to different sources of information which is already possessed and stored in their memory. Among of which are the syntactic and the semantic information, these two sources enable readers to make expectations concerning the upcoming words. As for the semantic source, a reader may expect a certain semantic category when encountering an unfamiliar word, for example when a reader, at the primary stage, is faced by the word *'pineapple*', he/she may recognize that this word is a kind of fruit based on his/her prior semantic knowledge of the word *'apple*' which is identified and stored in his/her memory as a kind of fruit. As for the syntactic source, the reader may also expect a particular syntactic form (i.e. verb tense) based on his previous knowledge, for example, when a reader encounters the new verb '*watched*', he/she may recognize that it is a past tense verb based on his/her previous knowledge of the suffix '*ed*' that was learned in past activities. In the two cases, the reader derives these expectations from (a) the information stated in the reading text, (b) his/her knowledge of the world, (c) and his/her knowledge of the language structure.

For young readers, in order to develop their knowledge to analyze written words, they should incorporate three essential elements; they are orthographic, phonological, and morphological knowledge (Coltheart, et al., 2001., Ginsberg, Honda & O'Neil, 2011., Green & Wolter, 2011., & Wolter, Wood & D'zatko, 2009). A point to consider is that the three elements are interrelated and all contribute in word decoding (Green & Wolter, 2011). Moreover, they should be integrated into the reader's lexical representation so that the activation of one of those elements will probably lead to a successful word retrieval from the memory (Taylor & Perfetti, 2016).

Morphological Awareness

Carlisle (1995, p.194) defined morphological awareness as the learner's "conscious awareness of the morphemic structure of words and their ability to reflect on and manipulate that structure". Morphological awareness helps the reader to recognize words and comprehend reading texts, this can be occurred through dividing words into smaller meaningful units (such as roots, suffixes, and prefixes) paving the way towards making more word associations in the reader's mental lexicon, and fostering the process of word identification (Perdijk, Schreuder, and Verhoeven, 2005). Tyler & Nagy (1989) found that being attentive to morphological information, especially at elementary stage, can lead for better words decoding, in addition, it has a positive impact on both internalizing grammar rules and obtaining the correct meaning.

Phonological Awareness

Phonological Awareness refers to the reader's ability to identify letter-sound correspondence through decoding spoken words, this process may comprises decoding phonemes, syllables, onsets or rimes (Roach, 2000; & Walton and Walton, 2002). Another definition for phonological awareness is the ability to realize that a word is made through combining sound units or onsets and rimes (Torgesen et al., 2009). Word analysis instruction cannot be separated from phonological awareness (Chow, McBride-Chang, Burgess, 2005). There is a strong relationship between identifying the sound structure of words and reading process (Leong, Hau, Cheng, &Tan, 2005). Port (2010, p.50) believed that phonemes are the "theoretical psychological counterparts" of orthographic letters, he clarified that while word decoding process, the reader starts to recall his/her phonemic information based on the alphabet writing system. According to Liu (2014), phonological awareness contributes in (a) increasing the learners' sense of letter-sound associations, (b) expanding their knowledge of articulation rules, and (c) helping them to articulate English language words correctly. The phonological awareness is a key component in word decoding. According to Veatch (1998), beginning readers should be able to identify isolated sounds which are represented in printed symbols; otherwise, they will face problems in dealing with letters, syllables and words. Chard & Osborn (1999) pointed out that it is very critical for readers to master letter sound and spelling pattern knowledge if they are to fully identify new words in the reading texts.

The Orthographic Knowledge

The knowledge of orthographic writing system refers to the ability to recognize each letter in the alphabet and its correspondent sound (Treiman, Tincoff, Rodriguez, Mouzaki, & Francies, 1998). Henderson (1984) defined orthography as "graphemic patterns of a written language and their mapping onto phonology, morphology, and meaning" (p. 1). Through orthographic knowledge, readers can identify unknown words via transforming the encountered letters into blended sounds. Besides, such knowledge helps readers to confirm words that were identified before by other sources (Perfetti, 1984). To Conrad & Deacon (2016), efficient word decoding skills depends on

initiating a solid base of lexical orthographic representations in the reader's memory. Shankweiler et al. (1999) claimed that learners who know how to deal with the alphabet writing system can read words from novels or even unreal words. Fowler (2010) claimed that learners' ability to recall words from their memory depends on having a strong alphabetic knowledge.

Play-Based Learning and Word Analysis

Play is a term that has been defined and discussed by many researchers, psychologists, and scholars. According to Kimberly et al (2013), play is a term that is difficult to define; this is because it involves a broad category of behaviors, such behaviors include running, swinging, sliding, building with blocks, digging in the dirt, making nonsense rhyming words, dancing to music, making up, dressing up, and pretending. He stated that all these kinds of behaviors share a set of aspects such as being pleasurable, voluntary, and enjoyable to children. Vygotsky (1933) cited in Bodrova and Leong (1966) defined play as a process of interaction between children's cultural and biological factors. He stressed the importance of imaginative play as a main source for children's development. Zuckerman (2006) discussed the idea of purposeful playing which is usually planned by teachers and parents to promote learning. Squire (2008) viewed Game-Based Learning (GBL), as an approach that utilizes physical, mental or digital games in learning activities. He stated that the use of these games can be implemented within and through activities, lessons, or curricula. Experts worldwide confirmed the effectiveness of using games as a critical strategy to enhance learners' level in word analysis, for example, **(**Casser and Jang, 2010; Hintikka, Aro, and Lyytinen, 2005; Kohl, 1981; Nation, 1990; Saine, et al. , 2010; and Weakland, 2013) proved that playing enhance children's vocabulary and this can promote language achievement. Saine, et al. (2010) stated that 'Grapho-Games' (games that focus on letter-sound correspondence) are useful means to enhance students' ability in letter-sound correspondence, reading fluency and accuracy, and spelling. Nation (1990) believed that learning vocabulary is a hard task and, in many cases, is taken place through traditional ways such as drilling and memorization, he stated that learners need to learn vocabulary through unconventional strategies that can draw students' attention. One way to teach vocabulary in an interactive and engaging manner is through play-based instruction. Casser and Jang (2010) claimed that utilizing games has a positive impact on word recognition. Ellington, Gordon, and Fowlie (1998) justified the reason behind adopting play based approach, they stated that "Classroom games and simulations are ideal vehicles for facilitating such learning, since they are, by their nature, strongly 'pupil-centered" (p. 7). Thus, the expansion of play-based learning came as a result of the adoption of student-centered approach which advocates choosing preferable activities to the learners such as playing.

Empirical Studies

Nair, Yusof, and Arumugam (2013) investigated the effect of using a play method on improving the mastery of vocabulary among (100) preschool children from Tamil-medium government preschool in Malaysia. The researchers also sought to identify the participants' attitudes towards using such method. To collect data, two instruments were used; a pre-post test, and a structured interview. The results of the study showed that the play method was significantly beneficial in the mastery of vocabulary.

Neville, Shelton and McInnis (2009) studied the effect of interactive fiction games on teaching vocabulary, reading and culture. The participants were eight L2 university students in Germany. In this study, the participants were invited to read a story and respond as if they were one

of the characters of the story. To collect data, the researchers observe students' responses and analyzed them qualitatively. In addition, they evaluated students' attitude toward the proposed game. The results indicated that this type of games helped students to develop their ability in the abovementioned domains.

Weakland (2013) followed a case study design to investigate the effect of game-based activities and a 'modified incremental rehearsal (MIR) flashcard drill' on improving learners' performance in the 'sight words' or the unfamiliar words. The participants were four students at the primary stage at rural, local school district in northwest Ohio. To obtain data, two tools were used, a pre-post test to measure the students' sight words recognition, and a survey to find out the subjects' preferable way for word instruction. The results of the study revealed that using game-based activities has a significant effect on improving students' word recognition.

Ramón and Ferrer (2017) conducted a study to investigate the effect of educational video games on L2 vocabulary acquisition. The participants were (65) students as a second language in the second year of the degree in Translation and Interpreting at the University of Alicante, Spain. To collect data, a pre-post test was used. The findings of the study revealed that students who accessed the learning content through the video game performed better than other students who studied the same content via the conventional method. Furthermore, students who were taught via video games believed that their vocabulary skills had enhanced further and found the learning content more attractive.

Cassar & Jang (2010) followed a quasi-experimental design to study the effect of Digital Games Based Approach (DGBA) on teaching spelling and word recognition for struggling readers. The participants were six Canadian students from the sixth grade. To obtain data, two teachers were asked to observe a total number of six intervention sessions. In addition, two types of measures were administrated (the CTOPP and WRAT-3). The aforementioned measures were utilized to assess five sub-skills namely, Phonological Awareness (PA), Phonological Memory (PM), Rapid Naming (RN), Word Recognition (WR-R) and Spelling (WR-S). The results indicated that the students who taught through games performed better than those who were taught through traditional way in the three following sub-skills; rapid naming, word recognition and spelling subtest.

Franciosi (2016) investigated the effect of Computer Game-Based Learning on vocabulary transferability (the ability to use the learnt vocabulary in separated communicative contexts). The participants of the study were (23) first and second years university students in Japan. A pre-post test along with a writing task were used to collect the data. The findings of the study suggested that computer game-based learning is significantly advantageous in improving the transferability of learned vocabulary.

Zheng, Bischoff, and Gilliland (2015) followed a case study design to study the effect of multiplayer online games on vocabulary learning. The participants of the study were two Japanese *World of Warcraft* game players. The two players initiated two accounts for *World of Warcraft* game which were connected to two Skype accounts. The researchers utilized the two accounts to collect data. That is, the data were collected instantly through text messages that present the results for each player. The results of the study showed that learning vocabulary became easier and more meaningful.

Lu and Chang (2016) investigated the effect of role-play games on enhancing vocabulary acquisition. The participants were (80) northern Taiwan vocational high school second year students. The researchers

divided them into two halves, (40) as an experimental group and (40) as a control group. A pre-post test and a questionnaire were used to collect data, the pre-post test tested three vocabulary levels namely the semantic sets, the communicative sets, and the situational sets. Meanwhile the questionnaire was used to investigate the level of students' participation in role-play games. The results of the study confirmed that role-play games facilitated students' vocabulary acquisition in the three aforementioned vocabulary levels.

Karadag (2015) used a mixed method to study pre-service teachers' perceptions on using game-based learning in Primary Reading and Writing Courses. The participants were 189 pre-service teachers who taught through games for 12 weeks. To investigate pre-service teachers' perceptions, the data were collected through both a questionnaire and semi-structured interviews. The results indicated that pre-service teachers had positive views toward using game-based learning in reading and writing courses. Moreover, the results revealed that the pre-service teachers become more aware of the importance of using games through teaching. However, most of pre-service teachers were worried about their ability to design appropriate games that fit students' age and interests.

Alpar (2013) utilized a quasi-experimental design to study the effect of educational games on the learner's level of foreign language learning. The participants were (16) 5th grade students aged from 10 to 11 years old at the Batı Koleji Primary School in Ankara. The researcher divided the learners into two groups of eights. The experimental group was taught using games-based activities, while the second group was taught traditionally. The participants had about 80 minutes in three weeks of optional FFL classes each week. To collect data, 3 periodic quizzes were conducted, one quiz a week. The result of the study showed that teaching through playing have a significant effect on learning the intended linguistic skills.

Concluding Remarks

To conclude, utilizing play-based approach to enhance word analysis skills through digital games was common through the studies (i.e. Cassar & Jang, 2010., Franciosi, 2016., Ramón and Ferrer, 2017., and Zheng, Bischoff, and Gilliland, 2015). All the previous studies differed from the current study in two elements; firstly, they used digital games but not verbal or physical games to enhance vocabulary learning. Secondly, such studies investigated the effect of digital games on vocabulary gaining in general, whereas, the current study investigated the effect of verbal and physical games on ten specific word analysis skills. Likewise, it was also found that some researchers used verbal and physical playing to promote vocabulary learning in general but not for enhancing specific word analysis sub-skills (i.e. Lu and Chang, 2016., Nair, Yusof, & Arumugam, 2013., & Neville, Shelton and McInnis, 2009). There were other group of studies that investigated the effect of play-based learning on English language in general but not for vocabulary learning or word analysis skills in specific (i.e. Alpar, 2013., & Karadag, 2015). Therefore, the current study tried to bridge this gap by studying the effect of verbal and physical playing games on EFL learners' word analysis skills.

Methods and Procedures

Design of the Study

The present study followed the Semi-experimental design; as it had two groups: one as experimental group and the other as a control group. The independent variable was the play-based program. The dependent variable was the students' performance in word analysis skills.

Participants of the Study

The participants of the study were (60) EFL fifth-grade male students at Amman new camp preparatory boys school. The study was implemented in the first semester of the scholastic year

2018/2019. Two intact sections of fifth-grade students were chosen randomly from the aforementioned school simply by putting the names of all the school sections (which were three sections) in a basket and choosing two sections randomly to take part in this study. The first section was selected randomly by flipping a coin as an experimental group and the other as a control group. Each group consisted of (30) students. The students of the two groups were pre-tested to check their equivalence. The students in the experimental group were taught vocabulary activities mentioned in the textbook of *Action Pack 5* by using play-based activities, meanwhile the control group was taught vocabulary by the conventional method mentioned in the Teacher's Guide of *Action Pack 5.*

Equivalence of the Groups

In order to check the equivalence of the experimental and the control groups, the analysis of covariance (ANCOVA) test was used.

The Instructional Program

The implemented training program was adopted from *Essential Reading Strategies for the Struggling Readers: Activities for an Accelerated Reading Program*) by Cornelius-Samos, García, Hickman-Davis, LeJeune, Light, Linan-Thompson, Martinez, Roberts, Rodríguez-Galindo, Sullivan, Vaughn (2002), University of Texas, collage of education. The source presents sub-skills to improve students' level in both reading comprehension and word analysis skills. Only the sub-skills that focus on word analysis skills were chosen to be implemented in this study. Each sub-skill in this program was accompanied with a lesson plan. Ten games from this source were chosen to improve students' word analysis skills. As the aim of the researcher is to investigate the effect of play-based activities on students' word analysis skills, he redesigned the sub-skills that are not games and turned them into game like lessons (appendix A shows a sample from the game lessons).

Procedures for Designing the Instructional Program

A set of steps were followed to design the current instructional program, they were (a) Reviewing the literature, (b) Finding good sources for educational games, (c) Selecting proper activities from these sources, (d) guaranteeing that the selected activities are related to the vocabulary activities that are mentioned in *Action Pack Fifth Grade*, the researcher conducted a content analysis for *Action Pack Fifth Grade* to check the relatedness of such activities. He chose only the activities that matched the outcomes *mentioned in Action Pack Fifth Grade*, (e) Redesigning the selected activities and turning them into game like lessons, and (f) Asking a jury of EFL specialists to review the program, and amending it as recommended.

Duration of the Instructional Program:

The current instructional program lasted for five weeks; the total number of games was 10. Two games were implemented in each week. Each game lasted from (15 to 20) minutes.

Validity of the Instructional Program

To achieve the validity of the program, the researcher handed it to a jury of eleven professors, instructors, supervisors, and teachers who are experts in English language curricula and instruction. They were three professors, three English language instructors, two English language supervisors, and three EFL teachers. The jury was requested to review the program and to provide the researcher with its feedback. The researcher appreciated the jury's suggestions and made the amendments as recommended.

Instruments of the Study

To achieve the purpose of the study, a pre-post test was developed to measure the participants' ability in word analysis sub-skills.

The Pre-post Test for Word Analysis Test

The researcher developed a pre-post test to measure the word analysis sub-skills that were included in the instructional program. The number of questions was ten, each question represented a certain sub-skill in the instructional program. Under each questions, a set of items were presented. The total number of test items was (67) items. The grades for each question was determined in accordance to the table of specification which was developed by the researcher (see appendix B). The questions in the pre-post test varied from choosing from multiple-choice, to filling in blanks, to matching, and answering with true or false questions. The same test was implemented at the beginning and at the end of the treatment to check whether there were significant differences or not.

Validity of the Word Analysis Test

To judge the validity of the word analysis test, the test was reviewed by a jury of EFL curriculum experts. They were asked to look into its content and provide the researcher with their comments and suggestions. Their comments and suggestions were taken into consideration.

Reliability of the Word Analysis Test

To achieve the reliability of the word analysis test, a pilot study was carried on (30) fifth grade students who were excluded from the sample of the study. The test-retest method with an interval of two weeks was utilized. The Pearson-correlation coefficient of the test-retest reliability was (0.88) which means that the test is reliable.

Difficulty and Discrimination Index for Word Analysis Pre-Test

To check the difficulty and discrimination index of the word analysis test, it was applied on a pilot study of 30 students. The results are presented in Table (1).

Table (1): Difficulty and Discrimination Index for Word Analysis Pre-Test

Number of Question	Difficulty Index	Discrimination Index
1	0.49	0.44
2	0.49	0.42
3	0.63	0.57
4	0.47	0.48
5	0.47	0.51
6	0.57	0.62
7	0.49	0.45
8	0.48	0.51
9	0.48	0.46
10	0.38	0.33

Table (1) indicates that the difficulty index ranges from (0.38-0.63) which is considered to be appropriate in difficulty. As for the discrimination index for the pre-test, it ranges from (0.33-0.62) which also means that the test is suitable.

Data Analysis

To answer the questions of the study, descriptive statistics to compare means and standard deviations of the experimental and the control groups were utilized. In addition, the analysis of covariance (ANCOVA) test was used to find the difference between the experimental and the control groups in word analysis sub-skills.

Results

The question of the current study aims to answer if there are any statistically significant differences at ($\alpha \leq 0.05$) between the students' mean scores on the word analysis post-test attributed to the use of play-based instructional program. In order to answer the question, means and standard deviations were calculated on the pre and post-test. Table (2) presents the students' mean scores and standard deviations in word analysis pre-post test.

Table (2) : Means and Standard Deviations of the Experimental and the Control Groups in the Pre-Test and the Post-Test in Word Analysis

#	Group	N	Pre-test		Post-test	
			Mean	Std. Deviation	Mean	Std. Deviation
1.	Experimental	30	43.87	20.44	69.80	16.99
2.	Control	30	45.60	19.87	55.20	19.060

Table (2) shows that the mean scores of the post test of the experimental group (69.80) is higher than the mean scores of the post test of the control group (55.20), with standard deviations of (16.99) and (19.060) respectively. Obviously, there are observed differences between the two groups in favor of the experimental group. To ascertain that the differences were statistically significant at ($\alpha \leq 0.05$), the analysis of covariance (ANCOVA) test was used. Table (3) presents the results of the experimental and the control groups on word analysis post-test.

Table (3): The Analysis of Covariance (ANCOVA) test for Experimental and Control Groups on Word Analysis Post-Test

Dependent Variable: grades

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	21763.757[a]	3	7254.586	1197.539	.000
Intercept	5098.685	1	5098.685	841.657	.000

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Groups	1229.945	1	1229.945	203.031	.000
Pre-test Word Analysis Covariance *Groups	18519.216	1	18519.216	3057.029	.000
Pre-test WA Covariance	114.441	1	114.441	18.891	.000
Error	339.243	56	6.058		
Total	256478.000	60			
Corrected Total	22103.000	59			

a. R Squared = .985 (Adjusted R Squared = .984)

Table (3) shows that there are significant differences at ($\alpha \leq 0.05$) in the students in the experimental group's mean scores in post-test due to the use of play-based instructional program. Statistically speaking, all the significance values are less than (0.05) which is statistically significant at ($\alpha \leq 0.05$).

Discussion

The question of the present study aimed to answer if there were any statistically significant differences at ($\alpha \leq 0.05$) in the students' mean scores of word analysis post-test attributed to the use of a play-based instructional program vs. conventional teaching method. The findings of the study indicated that there were statistically significant differences at ($\alpha \leq 0.05$) in the students' mean scores of word analysis post-test due to the use of a play-based instructional program vs. conventional teaching method in favor of the experimental group. It can be inferred from the results that the designed instructional program has managed to improve students' level in word analysis sub-skills. According to the researcher, two justifications led to this result. Firstly, the implemented instructional program provided both the teacher and the participants with clear and easy to follow steps. The researcher thinks that such clarity enables the teacher and the participants to follow the instructions and achieved the purpose of the instructional program properly. Secondly, the instructional program gave the participants an ample opportunity to analyze words mentioned in the lessons thoroughly. Specifically, the activities mentioned in the instructional program focused intensively on word formation, such activities comprised: matching beginning blends with word endings, learning different vowel patterns that correspond with one vowel sound, matching words that have the same ending word pattern (rime), distinguishing between short and long vowel sound, reviewing different word patterns studied during the week, decoding unfamiliar words that contain consonant blends, reading words that contain silent e word patterns, using students' knowledge of word parts within larger words to decode unfamiliar text, reading irregular, high-frequency words (sight words) correctly, and creating words by manipulating with letters. Having become good word analyzers in the abovementioned sub-skills, the participants were more able to identify words successfully. The findings of the current study is consistent with **(**Casser and Jang, 2010; Hintikka, Aro, and Lyytinen, 2005; Kohl, 1981; Nation, 1990; Saine, et al., 2010; and Weakland, 2013). All

of these researchers agreed that using play-based learning has an effective influence in improving students' word analysis skills.

Conclusion

The current study aimed to find out the effect of a play-based instructional program on word analysis skills among fifth grade UNRWA students in Jordan. In order to achieve the study purpose, a play-based instructional program was designed and implemented during the shcolastic year 2018/2019. The researcher concluded the following results:

1- The play-based instructional program has managed to improve the participants' word analysis skills.
2- The study showed that utilizing play-based activities in teaching word analysis skills can be beneficial especially among young learners.
3- Utilizing play-based activities enables the participants of the study to practice different word analysis tasks in an interactive atmosphere; the researcher concluded that this interaction was taken place as a result of the collaborative work which advocates using group work and pair-work to accomplish these tasks.

Recommendation

Based on the findings of the current study, a set of recommendations are presented for EFL textbook designers in the Ministry of Education, EFL supervisors, EFL teachers, and researchers:

1- The EFL textbook designers in the Ministry of Education are recommended to adopt the play-based activities in designing English language curricula in order to create more motivating and enjoyable EFL vocabulary learning.
2- The Ministry of Education is also recommended to conduct an ample number of workshops and training sessions in order to train teachers on designing and implementing different educational games to be used inside their classes.
3- EFL supervisors are recommended to both raise teachers' awareness about the significance of play-based teaching, and encourage them to utilize educational games within EFL classes. To do this, EFL supervisors can hold sufficient training courses to teachers so that they can make use of educational games properly.
4- EFL teachers are recommended to change their role in their classes to become guides, facilitators, councilors, and organizers. In the current study, the teacher needed to have more innovative roles such as being a game player or a referee,
5- EFL teachers are recommended to make use of the current instructional program within vocabulary tasks.
6- The researchers are recommended to conduct further studies to find out the effectiveness of play-based learning on developing other language skills, within other EFL grades, and within other areas of Jordan.

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