



The Effectiveness of a Play-Based Educational Program in Enhancing Motivation to Learn English among a Sample of Children in Gaza during Wartime

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Abstract: Objective: This study aimed to examine the effectiveness of an educational program based on Play-Based Educational Program in enhancing motivation to learn English among children in Gaza under wartime conditions. **Method:** The research adopted a quasi-experimental design using one group with pre- and post-testing. The sample consisted of ten children aged between 9 and 12 years from the Al-Zawaida area in central Gaza. The researcher developed and employed both the motivation scale for learning English and the play-based educational program. **Results:** Paired samples t-test results revealed statistically significant differences in favor of the post-test scores, indicating the program's effectiveness in enhancing students' motivation. Eta-squared values also demonstrated a strong effect size across all dimensions of the motivation scale. Follow-up results confirmed the stability and continuity of the program's positive effects. **Conclusions and Recommendations:** The program proved effective as a pedagogical tool to enhance motivation for learning English. It is recommended to adopt Play-Based Educational Program in educational settings, particularly under emergency and crisis conditions, given their sustainable impact on student learning. **Keywords:** Play-Based Educational Program, Motivation to learning English, Gazan children, wartime.

فاعلية برنامج تعليمي قائم على استراتيجيات التعلم باللعب في تنمية الدافعية نحو تعلم اللغة الإنجليزية لدى

عينة من أطفال غزة في ظل الحرب

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الملخص: الهدف: هدفت الدراسة إلى اختبار فاعلية برنامج تعليمي قائم على استراتيجيات التعلم باللعب في تعزيز الدافعية لتعلم اللغة الإنجليزية لدى عينة من الأطفال في غزة في ظل ظروف الحرب. **المنهج:** اعتمد البحث المنهج شبه التجريبي باستخدام مجموعة واحدة بتطبيق القياس القبلي والبعدي. تكونت العينة من عشرة أطفال تتراوح أعمارهم بين (9-12) سنة من منطقة الزوايدة في وسط غزة. قام الباحث بتطوير وتطبيق مقياس الدافعية لتعلم اللغة الإنجليزية، بالإضافة إلى البرنامج التعليمي القائم على استراتيجيات اللعب. **النتائج:** أظهرت نتائج اختبار "ت" للعينات المترابطة وجود فروق دالة إحصائية لصالح التطبيق البعدي، مما يشير إلى فاعلية البرنامج في تعزيز دافعية الطلبة. كما بينت (قيمة إيتا²) أثر قوي عبر جميع أبعاد مقياس الدافعية. وأكدت نتائج المتابعة استقرار واستمرارية الأثر الإيجابي للبرنامج. **الاستنتاجات والتوصيات:** أثبت البرنامج فعاليته كأداة تربوية لتعزيز الدافعية نحو تعلم اللغة الإنجليزية، ويوصى بتبني استراتيجيات التعلم باللعب في البيئات التعليمية، خاصة في ظروف الطوارئ والأزمات، لما لها من أثر مستدام في دعم تعلم الطلبة. **الكلمات المفتاحية:** استراتيجيات التعلم باللعب، الدافعية نحو تعلم اللغة الإنجليزية، أطفال غزة، ظروف الحرب.

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Introduction

Childhood is a crucial stage in shaping learners' personalities and developing their linguistic and cognitive abilities. This highlights the importance of providing stimulating educational environments that support children's holistic growth. Research shows that play-based programs enhance active participation and deep learning through interaction and exploration (Isenberg & Jalongo, 2014). Similarly, recent studies have confirmed the positive impact of such programs on essential language skills (e.g., oral reading), proving that play is a powerful educational tool rather than mere entertainment (Abdel Jawad, 2020).

Learning motivation is a fundamental psychological and educational concept that influences learners' engagement, persistence, and the overall quality of learning. Research demonstrates that highly motivated students make greater effort, display resilience, and are more inclined toward self-directed learning (Pintrich & Schunk, 2002). Motivation is commonly divided into two types: intrinsic—driven by curiosity, enjoyment, and personal growth—and extrinsic—driven by rewards or the avoidance of punishment.

Motivation is particularly vital in learning English as a foreign language, since mastery requires continuous engagement, sustained effort, and a supportive environment. Studies have shown that motivation strongly influences learners' comprehension, interaction, and persistence (Dörnyei, 2001). Al-Sanafi (2023) also reported a significant positive correlation between English learning strategies and motivation among female elementary students, emphasizing its key role in language acquisition.

In light of these findings, educators have increasingly designed play-based programs to enhance children's motivation by integrating

academic content into enjoyable and interactive activities that reduce stress and nurture curiosity (Isenberg & Jalongo, 2014). Al-Harbi and Al-Obaiki (2024) demonstrated that illustrated short stories effectively develop listening skills and support learning retention among sixth-grade students. Likewise, Al-Ruwaili (2023) confirmed the effectiveness of AI applications in improving phonemic awareness, while Hammoudi (2023) found that educational play enhances English achievement. Similarly, Al-Nahood (2004) reported significant post-test differences favoring the experimental group in play-based learning.

Learning English faces several challenges, including weak language skills, limited classroom support, inadequate teacher preparation, and an overreliance on rote learning (Al-Araimi & Ali, 2021). These factors diminish learners' motivation and underscore the need for innovative teaching strategies. Although many studies have examined the role of play in education, most were conducted in stable environments. The Palestinian context, particularly Gaza, lacks applied research on structured play-based programs during wartime—especially concerning motivation to learn English. Play-based learning remains one of the most effective strategies in language teaching. Educational games—defined as organized physical or mental activities that stimulate motivation and achieve lesson objectives through interaction—also enhance emotional engagement, making the learning process more enjoyable and effective (Al-Masoudi & Al-Hadawi, 2018; Rixon, 1986, as cited in Hammoudi, 2010).

This approach integrates play as an instructional tool to develop cognitive, linguistic, and social skills, enabling children to learn effectively through enjoyable, guided

activities that promote exploration, problem-solving, and interaction. These activities help learners acquire vocabulary and grammar in meaningful contexts. Research indicates that guided play fosters stimulating learning environments, enhances interaction and engagement, and supports emotional and social growth, making it a holistic and positive approach to language learning.

The idea for this study originated from the researcher's personal observation of his daughter, Farah Al-Muhtaseb, who conducted English lessons using games and playful activities. Her creative approach captured students' attention and increased their enthusiasm for learning. This inspiring experience, contrasting with the limited implementation of such engaging methods in Gaza's classrooms, motivated the researcher to examine the impact of a structured play-based educational program on students' motivation to learn English.

The Role of Language Games in Teaching English

Educational literature indicates that play-based instructional programs have a clear positive impact on developing language skills. Belhadji (2024) found that language games improved listening, reading readiness, writing, and speaking among kindergarten children. Similarly, 'Abd Al-Jawad (2020) showed that integrating educational games enhanced oral reading skills among second graders. Play also serves as an effective tool in challenging learning environments to promote language development and address related research issues.

In English language teaching, Al-Harbi and Al-'Ubayki (2024) reported that picture stories improved listening and retention, while Al-Sharif and Falatah (2022) confirmed that digital games enhanced grammar mastery among middle school students. Likewise, Hammoudi

(2023) emphasized that educational games raise academic achievement and enhance motivation through guided, interactive play.

Principles of Designing Educational Games

The success of play-based learning depends on designing games that align with lesson objectives and learners' proficiency levels. Key features of communicative games—such as information gaps, freedom of choice, and immediate feedback—should be incorporated to guide learners' improvement (Johnson & Morrow, 1981, as cited in Hammoudi, 2010). Games must also include appropriate challenges, promote peer collaboration, and maintain variety and curricular relevance by addressing vocabulary, grammar, and conversation to ensure integration of linguistic, cognitive, and social aspects. Examples include role-play, flashcards, word games, and classroom competitions (Al-Suweirki, 2005). Such activities not only develop language skills but also foster critical thinking, problem-solving, and teamwork. In conclusion, play-based learning represents a comprehensive instructional strategy that enhances both language skills and motivation to learn English. For best results, games should be thoughtfully designed, regularly implemented, and diversified to meet learners' needs.

The Concept of Motivation and Its Importance in Language Learning

Motivation for learning is a decisive factor in stimulating and directing academic behavior. Ryan and Deci (2000) emphasized that enhancing students' motivation makes learning more effective and positive. In education, motivation serves as a driving force that guides learners toward achieving their goals and is one of the most influential factors affecting achievement and performance due to its positive association with learners' interests and readiness to learn (Ibrahim, 2007).

Motivation refers to the internal and external forces that drive behavior toward achieving specific goals, influencing effort and persistence in facing challenges (Al-Hayti, 2018). It is central to language learning, determining the strategies learners use and their perseverance in the process (Gardner, 2010). Motivation is generally classified as intrinsic—stemming from curiosity and personal growth—or extrinsic—driven by rewards, punishments, or social expectations (Ryan & Deci, 2000).

In English language learning, Al-Sanafi (2023) found a positive correlation between motivation and learning strategies among elementary students in Kuwait, while Al-Araimi (2021) identified low motivation, limited vocabulary, and difficulties in listening and speaking as major challenges, emphasizing the need for motivational strategies. Researchers have therefore recommended adopting play-based learning to enhance language acquisition and skill development (Al-Suweirki, 2005). Educational psychologists confirm that such games follow structured systems aligned with learning objectives and vary according to the targeted linguistic, cognitive, or motor skills (Al-Masoudi & Al-Hadawi, 2018).

Factors Influencing Motivation

Motivation to learn English is influenced by several factors:

Social factors such as family support, societal expectations, and opportunities to use the language.

Psychological factors including self-confidence, attitudes toward English, and prior learning experiences that shape learners' self-perception (Al-Hayti, 2018).

Environmental and educational factors encompassing instructional quality, availability of teaching aids, and classroom interaction that fosters participation and collaboration.

Dörnyei highlighted that supportive, positive environments enhance motivation, whereas stressful or tense settings reduce it.

The Impact of Play-Based Learning on Motivation

Play-based learning effectively fosters motivation by creating enjoyable, interactive environments that reduce anxiety, enhance learners' sense of competence, and strengthen intrinsic engagement (Al-Maghazi, 2001). Rubay'ah (2018) found that a play-based program improved the motivation of lower basic stage students with learning difficulties, while Ahmad (2023) reported that it developed critical thinking among eighth graders, positively influencing their desire to learn.

In English language teaching, Al-Harbi and Al-Obaiki (2024) demonstrated that picture stories improved listening skills and learning retention, while Al-Ruwaili (2023) confirmed that integrating AI applications with play-based activities enhanced phonemic awareness among sixth-grade students.

The MUSIC Model as a Supporting Framework

Play-based learning aligns closely with the MUSIC model, which integrates Motivation, Understanding, Success, Interest, and Cooperation to foster academic motivation (Al-Muhamid & Al-Ghazzaw, 2022). By combining these elements within a supportive environment, play-based learning effectively motivates English language learners and promotes sustainable learning outcomes.

Practical Strategies and Applications

Teachers can enhance learners' motivation through various play-based strategies, including:

- Language games that integrate vocabulary and grammar with interactive challenges and immediate rewards (Al-Heela, 2012).

- Interactive stories combining engaging narratives with learner participation.
- Classroom simulations and drama that present real-life situations requiring natural language use.
- Digital games offering enjoyable, personalized environments with progress tracking and instant.
- Feedback.

Hammoudi (2023) found that such activities improve academic achievement by integrating cognitive and affective learning aspects.

Conclusion

Motivation is the cornerstone of English language learning, driving persistence and achievement. Play-based learning effectively enhances motivation by merging enjoyment and success, reducing psychological barriers, and making learning more interactive—especially in early and middle educational stages. Integrating play-based learning with other motivational strategies fosters stimulating classrooms and promotes sustainable learning outcomes.

Previous Studies

A review of educational literature revealed several studies addressing the current topic in different contexts. Using quasi-experimental designs, these studies examined the effectiveness of play-based programs in developing language skills. Balhadji (2024) conducted a study on 20 kindergarten children at Baraem Al-Kawthar in Chlef, Algeria, using a pre- and post-language skills scale covering listening, reading readiness, writing, and speaking. The results showed statistically significant post-test improvements, confirming the program's effectiveness and recommending the adoption of language play in early education. Similarly, Ahmad (2023) studied 50 basic school students in Jerash, dividing them into experimental and control groups. Results indicated significant differences favoring the

experimental group in critical thinking, supporting the role of play-based learning in enhancing higher-order thinking skills. Likewise, Hammoudi (2023), in a study of 50 middle school students, found that educational play significantly improved English achievement and recommended integrating play-based strategies into teaching.

Al-Sharif and Falatah (2022) investigated the effect of digital educational play on developing English grammar skills among 42 first-grade intermediate female students, divided into experimental and control groups. The results showed statistically significant differences favoring the experimental group in mastering the present simple, continuous, and perfect tenses, confirming the effectiveness of digital play in teaching grammar. Similarly, Al-Qalawi and Ababneh (2022) examined the use of language play to improve Arabic reading skills among lower basic stage students in Jordan and found significant gains across all grades, highlighting its positive impact on reading. Abdel Jawad (2020) also reported that educational play enhanced oral reading skills among second graders and recommended integrating it into early reading programs. Furthermore, Rabaia (2018) found that play-based programs improved both social skills and achievement motivation among lower basic stage students with learning difficulties, demonstrating their broader educational benefits.

Several studies have examined innovative learning methods for improving English language skills. Al-Ruwaili (2023) reported that artificial intelligence applications effectively enhanced students' phonemic awareness and recommended their integration into curricula to strengthen phonological skills. Likewise, Al-Anzi (2024) investigated fixed learning strategies to increase English vocabulary among first-year secondary students using a quasi-experimental design.

Results showed significant post-test gains, confirming the strategies' effectiveness in expanding learners' lexical repertoire. Similarly, Al-Harbi and Al-Obaiki (2024) demonstrated that illustrated short stories improved listening skills and retention among students in Al-Rass Governorate, recommending their use as supportive tools in English language instruction.

Several studies have investigated the relationship between English learning strategies and motivation using various research designs. Al-Sanafi (2023), employing a descriptive correlational method with 147 female students, found a significant positive correlation between the use of English learning strategies and motivation, indicating that developing such strategies enhances learners' motivation. The study recommended training students to use diverse strategies and integrating them into curricula and classroom practices. Similarly, Nasrallah (2022) examined the relationship between motivation and learning styles among 162 elementary students (grades four and five) using a descriptive correlational design. The results showed a significant relationship between motivation and learning styles, emphasizing the importance of considering individual differences when designing activities to support motivation.

Al-Mahameed and Al-Ghazo (2022) found a significant relationship between metacognitive skills and academic motivation, emphasizing their role in improving teaching efficiency. They recommended incorporating metacognitive training and motivation development into teacher preparation programs. Similarly, Al-Araimi (2021) analyzed 30 studies to identify challenges in learning English and reported that low motivation, limited vocabulary, and difficulties in listening and speaking were the most prominent issues, recommending motivational

strategies to overcome them. Overall, previous studies widely confirm the effectiveness of play-based learning in enhancing motivation and language skills across educational stages. However, most were conducted in stable environments, whereas the Palestinian context—particularly Gaza under wartime conditions—has seen limited application. Thus, the significance of the current study lies in addressing this gap by presenting an applied play-based model within a crisis context.

In summary, although previous literature has highlighted the role of play in enhancing motivation and improving English language learning, it has rarely been tested in conflict-affected settings. This highlights the significance of the Palestinian case in Gaza, which provides valuable evidence on how play-based strategies can support children's motivation to learn under exceptionally challenging conditions.

The Study's Benefit from Previous Research

The current study benefited from previous research by confirming the effectiveness of play-based strategies in enhancing various aspects of learning, guiding the design of the educational program and measurement tools, and supporting the adoption of a quasi-experimental research design.

Distinctive Features of the Present Study

This study stands out in several important ways. It focuses specifically on motivation to learn English as a psychological and educational construct, rather than on general academic achievement or language skills. Conducted in war-affected Gaza, it provides rare insights into education under crisis conditions. Unlike most comparative studies, it used a single-group experimental design (pre–post–follow-up) due to field limitations. In addition, a customized motivation scale was developed to measure the psychological and behavioral aspects of children's learning

motivation, reviewed and validated by experts. Accordingly, the study contributes both scientifically and practically to the literature on education in conflict-affected contexts.

Origin and Purpose of the Study

The researcher observed positive outcomes, evident in children's engagement, enthusiasm for attendance, and enjoyment of learning—each session extending for hours without signs of boredom or withdrawal. This real-life experience inspired the investigation of the effectiveness of a play-based educational program within a crisis-affected environment. Accordingly, the current study was designed to examine the impact of such a program on enhancing motivation to learn English among children in Gaza during wartime, aiming to provide evidence-based support for the integration of play-based strategies into real-world teaching practices.

Problem Statement

English, as a foreign language, is often perceived as difficult by learners—particularly when taught through traditional methods that neglect children's developmental and emotional needs. This challenge intensifies in conflict-affected areas such as Gaza, where prolonged aggression and blockade expose children to severe psychological stress, diminishing their motivation and engagement in learning, especially in English. Reports and field observations (UNICEF, 2022) reveal a marked decline in students' academic performance and interest in English learning due to war-related trauma and emotional distress. Similarly, Al-Araimi (2021) identified low motivation to learn English as a major challenge among students. While previous studies have explored play-based learning in stable contexts, little attention has been given to its application in crisis environments. Therefore, this study seeks to examine the effectiveness of a play-based educational

program in enhancing motivation to learn English among children in Gaza.

What is the effectiveness of a play-based educational program in enhancing motivation to learn English among a sample of children in Gaza during wartime?

From this main question, the following sub-questions are derived:

1. Are there statistically significant differences at the level of (0.05) in the mean scores of the motivation to Learn English Scale between the pre-test and post-test among the experimental group?
2. Are there statistically significant differences at the level of (0.05) in the mean scores of the motivation to Learn English Scale between the post-test and follow-up test among the experimental group?

Research Objectives

1. To investigate the effectiveness of a play-based educational program in enhancing motivation to learn English among children in Gaza.
2. To examine whether there are statistically significant differences at the 0.05 level in motivational scale mean scores between the pre- and post-test among the experimental group.
3. To examine whether there are statistically significant differences at the 0.05 level in motivational scale mean scores between the post-test and follow-up test among the experimental group.

Significance of the Study

Theoretical Significance

This study enriches educational literature in English language learning by presenting a theoretical framework that connects Play-Based Educational Program with academic motivation, particularly within crisis contexts. It contributes to active learning theory by validating the effectiveness of non-traditional

approaches—such as play—in developing learners’ psychological and behavioral aspects. Moreover, it highlights motivation to learn a language as a key psychological factor influencing second language acquisition and deepens understanding of its interaction with environmental and contextual factors. The study also offers an applied theoretical model that can serve as a foundation for future educational and psychological research, especially in conflict-affected regions.

Practical Significance

The study provides a ready-to-implement play-based educational program adaptable for teachers and educators in Palestinian schools and similar settings. It presents engaging educational alternatives that align with children’s psychological and social characteristics while reducing the negative effects of external stressors on learning engagement. Furthermore, it supports educational practices during crises by offering decision-makers and teachers field-tested strategies that enhance language learning under emergency conditions. By fostering children’s adaptability and engagement despite challenges, the program contributes to the continuity of education and recovery from the psychological and academic consequences of war. The findings may also be applicable to educational and psychosocial support programs for children in conflict-affected areas worldwide.

Delimitations of the Study

Topical Delimitation: The study focuses on examining the effectiveness of a play-based educational program in enhancing motivation to learn English among children in Gaza during wartime.

Human Delimitation: The participants are primary school children aged 9–12 from the Al-Zawaida area in the Gaza Strip, learning

English within a war-affected educational context.

Spatial Delimitation: The research was conducted at a volunteer’s home in Al-Zawaida, one of the areas most affected by the blockade and military aggression.

Temporal Delimitation: The study was implemented during the first semester of the 2024/2025 academic year.

Operational Definition of Terms

Play-Based Educational Program: A structured series of sessions designed around Play-Based Educational Program, where play serves as a pedagogical tool to stimulate learners and enhance motivation through physical, linguistic, and role-playing activities. The program aims to foster children’s motivation to learn English in crisis-affected settings (Piaget, 1962; Isenberg & Jalongo, 2014)

Operational Definitions (by the Researcher)

Play-Based Educational Program: A structured educational program applied to a sample of children in Gaza, consisting of interactive sessions that employ educational play activities such as movement play, linguistic play, and simulated scenarios. It was implemented within a set timeframe and organized framework to enhance motivation to learn English.

Motivation to Learn English: An internal drive that encourages learners to make consistent efforts in acquiring English, reflected in persistence, high achievement aspirations, and enjoyment of the learning process (Al-Shammari, 2019). Operationally, it refers to an internal state observed through children’s behavior during English learning—seen in their willingness to participate, persistence, focus, and enthusiasm to use English in daily situations. This motivation is measured by the child’s score on the

“Motivation to Learn English Scale” used in the current study.

Children of Gaza During Wartime:

Children aged 9–12 participating in this study, residing in the Gaza Strip during the period of aggression and blockade. They are affected by the psychological and social impacts of war and were selected from educational institutions within Gaza.

Methods

Research Design

The study employed a quasi-experimental one-group pretest–posttest design to assess the effectiveness of a play-based educational program in enhancing motivation to learn English among children in Gaza during wartime. As a pilot exploratory study, its findings are preliminary and not intended for generalization but aim to inform future research in crisis contexts. This design was selected due to the complex security and humanitarian conditions that made forming a control group impractical and ethically inappropriate. Continuous shelling, displacement, and instability, along with the ethical obligation to avoid denying potential benefits or exposing children to additional risks, necessitated using a single-group design as the safest and most contextually suitable approach, while recognizing its limitations in establishing full causality.

Study Population

The study population comprised all upper primary students (grades 4–6) in the Al-Zawaida area of central Gaza. The area was selected through a convenient sampling method due to field constraints. Identifying the complete statistical population was not feasible because of the region’s exceptional conditions, including recurrent aggression, the ongoing blockade, the suspension of formal education for over a year, and the lack of access to official

databases or organized communication with schools and educational authorities.

Participants and Procedure

Pilot Sample

The pilot sample included 30 students of both genders, purposefully selected for their similarity to the main participants. This group was used to test the validity and reliability of the study instruments.

Main Study Sample

The main sample comprised 10 children (boys and girls) aged 9–12, all residing in Al-Zawaida and enrolled in primary school during the first semester of the 2024/2025 academic year. The small sample size was due to severe security conditions and limited access to participants, while forming a control group was ethically and practically unfeasible under wartime circumstances. Consequently, the results are preliminary and exploratory but provide meaningful insights into the program’s feasibility.

All ethical standards were strictly observed: parental consent was obtained, data confidentiality was ensured, and participation occurred in a psychologically safe and supportive environment consistent with research ethics. The participants completed the Motivation to Learn English Scale before and after the intervention to measure the program’s impact on enhancing English learning motivation under emergency conditions.

Implementation of the Program

The implementation coincided with the ongoing war on Gaza, which created severe security and logistical challenges, including population displacement, restricted movement, and limited access to children. The Al-Zawaida area, primarily agricultural with a small population, further constrained the number of available participants aged 9–12. Thus, despite the small sample size, it reflected what was realistically attainable under wartime and

blockade conditions, and the results should be regarded as preliminary and exploratory.

The program was carried out in a community-based home setting in Al-Zawaida, where the researcher resided following the destruction of his home during the recent aggression. Sessions were conducted indoors using available resources consistent with the program's goals and target group.

The sessions were facilitated by Farah Al-Muhtasib, a graduate in English language education with international ELT certifications, assisted by Rawan Al-Muhtasib, a university student in the same field. Their selection was based on their pedagogical competence, motivation, and ability to engage children effectively under crisis conditions. The facilitators followed the program plan closely, applying strategies suited to the children's developmental and psychological needs. The safe home environment and their teaching skills significantly contributed to the children's participation and engagement.

Their selection was both intentional—based on proven success—and practical within the emergency context. Implementation was carefully supervised to ensure fidelity to the program and achievement of its objectives.

Program Duration and Sessions

The program consisted of 20 sessions, each lasting about 60 minutes (extendable depending on the activity). Sessions were held three times per week over approximately seven weeks.

Educational Strategies and Techniques

Strategies: Physical play, role-play, cooperative learning, visual brainstorming, simulation and drama, and story-based learning.

Techniques: Educational songs, interactive flashcards, picture stories, educational bingo, role-playing scenarios, and motivational badge distribution.

Program Review

The program was reviewed by five specialists to ensure its alignment with objectives, coherence between sessions, and suitability for the target age group.

Follow-Up Assessment

A follow-up assessment was conducted one month after the program's completion, during the fifth week after the final session, without any further instructional intervention. The same Motivation to Learn English Scale used in the pre- and post-tests was re-administered to assess the sustainability of the program's impact over time.

Instrument: Motivation Scale for Learning English (Developed by the Researcher)

The researcher designed a scale to measure motivation toward learning English among lower-basic students (ages 9–12). The instrument was developed based on theoretical literature and prior studies (Al-Sayegh, 2008; Al-Shammari & Al-Masaad, 2019; Dörnyei, 2001; Pintrich & Schunk, 2002) and by reviewing standardized tools such as the MSLQ (Pintrich et al., 1991)

1. Scale Content

The scale consists of 18 items distributed across three domains (six items each):

Interest and Attraction toward the Subject: measures the child's enthusiasm and positive feelings toward English classes.

Perseverance and Effort: assesses persistence and active participation despite difficulties.

Positive Orientation toward Learning: evaluates constructive mental and emotional attitudes toward learning English.

2. Item Formulation

Items were written in clear, age-appropriate language reflecting the local cultural context. A three-point Likert scale was used (Always = 3, Sometimes = 2, Never = 1), with reverse

scoring applied to negatively worded items when applicable.

3. Content Validity (Experts' Judgment)

The scale was reviewed by a panel of experts in educational psychology, English teaching methods, and measurement and evaluation. Based on their feedback, modifications were made—such as rewording, reordering, and simplifying items and instructions. No items were deleted, resulting in a final version of 18 items.

4. Internal Consistency Validity

Item–total correlations for each domain were calculated using data from a pilot sample of 30 students. The results were as follows:

Table (1): Correlation Coefficients Between Each Item of the Motivation to Learn English Scale and the Total Score of Its Corresponding Domain.

Item No.		Correlation Coefficient (r)	Significance Level (p-value)
Interest and Attraction to the Subject			
1	I like learning English.	0.493	0.006
2	I feel happy when I speak English words.	0.753	0.000
3	I enjoy the activities we do in English class.	0.675	0.000
4	I like listening to songs or stories in English.	0.770	0.000
5	English is fun for me.	0.861	0.000
6	I am happy when my English class goes well.	0.907	0.000
Perseverance and Effort			
7	I try to memorize new English words every day.	0.731	0.000
8	I participate in all English class activities.	0.387	0.035
9	I ask for help if I don't understand something in English.	0.495	0.005
10	I study English even when it's difficult.	0.697	0.000

Item No.		Correlation Coefficient (r)	Significance Level (p-value)
11	I review my English lessons on my own	0.736	0.000
12	I try to speak English at home or with my friends.	0.849	0.000
Positive Orientation Toward Learning			
13	I want to learn English to talk to people from other countries.	0.583	0.001
14	I believe English will be useful for me in the future.	0.660	0.000
15	English helps me watch movies or enjoy songs.	0.662	0.000
16	I feel proud when I learn something new in English.	0.580	0.001
17	I want to be excellent in English.	0.691	0.000
18	English is important in my life.	0.861	0.000

Significant at the 1% level **

Significant at the 5% level*

It is evident from the table that all correlation coefficients are positive and statistically significant at the 0.05 level, indicating strong internal consistency.

Construct Validity

The correlation coefficient between each subscale of the motivation-to-learn-English scale and the total score was calculated, as shown in Table (2).

Table (2): Correlation coefficients between each subscale of the Motivation to Learn English Scale and the total score.

Subscale	Number of Items	Correlation Coefficient	Significance Level
Interest and Attraction to the Subject	6	0.957	0.000
Perseverance and Effort	6	0.927	0.000
Positive Orientation Toward Learning	6	0.969	0.000

Significant at the 1% level **

Significant at the 5% level*

The results in Table (2) show that the correlation coefficient between each dimension of motivation to learn English and the total score of the scale is positive and statistically significant at the 0.05 level. This indicates that the scale demonstrates construct validity for its dimensions, which is an indicator of the scale's validity in measuring the phenomenon for which it was developed.

Scale Reliability

Cronbach's Alpha and the Split-Half method (with Spearman–Brown correction) were used, as shown in the table below:

Table (3): Reliability Coefficients of the Motivation to Learn English Scale Using Cronbach's Alpha and Split-Half Method.

Dimension	Number of Items	Cronbach's Alpha	Split-Half Reliability	
			Before Revision	After Revision
Interest and Attraction to the Subject	6	0.816	0.669	0.802
Perseverance and Effort	6	0.728	0.724	0.840
Positive Orientation toward Learning	6	0.739	0.474	0.643
Total Scale Score	18	0.917	0.899	0.947

Corrected using the Spearman–Brown formula for even-numbered dimensions

The results in Table (3) show that the high values of Cronbach's Alpha and the corrected split-half coefficients confirm that the scale enjoys high reliability and is suitable for use in measurement.

Normality Test

The Shapiro–Wilk test was conducted to assess the normality of the data. As shown in Table (4), all significance values (Sig.) were greater than 0.05, indicating that the data follow a normal distribution. Therefore, parametric

statistical tests were used to analyze the study hypotheses.

Table (4): Test of Normal Distribution of the Data.

Group	Shapiro-Wilk		
	Statistic	df	Sig.
Experimental – Pre	0.849	10	0.056
Experimental – Post	0.867	10	0.091
Experimental – Follow-up	0.882	10	0.139

Play-Based Educational Program

First: Educational Rationale

The program is grounded in the principles of constructivist and active learning, incorporating play elements as both educational and therapeutic tools. Activities are designed in alignment with the vocabulary, grammar, and skills of the English language curriculum for the target group. It is based on educational play strategies proven effective in increasing motivation and improving language performance. **It is** drawing on the findings of studies that have demonstrated the impact of play-based education on motivation, such as Al-Harbi & Al-Obaiki (2024), Ahmed (2023), Hammoudi (2023), Isenberg & Jalongo (2014), Dörnyei (2001), and Al-Nahood (2004).

Second: Program Objectives

The program aims to enhance children's motivation to learn English through:

1. Providing a stimulating and interactive learning environment.
2. Integrating the academic content of the English language curriculum into engaging play activities.
3. Boosting self-confidence, perseverance, and a love for learning.
4. Addressing the psychological effects of war through organized and safe play activities.

Third: Target Group

Lower basic stage students (ages 9–12) from the Gaza Strip.

Fourth: Foundations of Program Design

- Psychological foundations: Addressing the emotional and psychological needs of children affected by war.
- Educational foundations: Integrating principles of active and constructivist learning.
- Developmental foundations: Aligning the content with the learners' age characteristics.
- Curricular foundations: Linking activities to the content and vocabulary of the approved curriculum.

Fifth: Distribution of Educational Sessions

The program consists of structured sessions, each including the session title, its objective, the strategies used, and the applied techniques and activities (see **Appendix 1**)

Results

The first research question stated: Are there statistically significant differences at the level of (0.05) in the mean scores of the motivation to Learn English Scale between the pre-test and post-test among the experimental group?

To examine the differences in the motivation scores of the experimental group between the pre-test and post-test, the Paired Samples t-test was employed. The results are presented in Table (5).

Table (5): Results of the Paired Samples t-test to identify differences in the scores of the experimental group between the pre- and post-tests on the Motivation to Learn English Scale.

Dimension	Group	N	Mean	standard Deviation	t-value	Significance Level (Sig.)	Eta Squared
Interest and Attraction to the Subject	Experimental – Pre-test	10	1.300	0.233	-15.429	0.000	0.964
	Experimental – Post-test	10	2.500	0.208			
Perseverance and Effort	Experimental – Pre-test	10	1.417	0.212	-12.243	0.000	0.943
	Experimental – Post-test	10	2.400	0.274			
Positive Orientation toward Learning	Experimental – Pre-test	10	1.383	0.193	-11.012	0.000	0.931
	Experimental – Post-test	10	2.450	0.261			
Total Scale Score	Experimental – Pre-test	10	1.367	0.137	-15.389	0.000	0.963
	Experimental – Post-test	10	2.450	0.171			

Note: The critical t-value at 9 degrees of freedom and a significance level of 0.05 = ± 2.262

If the value of Eta squared is less than or equal to 0.01, the effect is considered small; if it ranges between 0.01 and less than 0.14, the effect is considered moderate; and if it is greater than 0.14, the effect is considered large (Abu Daqa & Safi, 2013). The results of the paired-samples t-test revealed statistically significant differences at the 0.05 level between the mean scores of the experimental group in the pre- and post-measurements on the Motivation to Learn English Scale, with the differences favoring the post-test. The high Eta squared values, ranging from 0.931 to 0.964, indicated a large effect size across all scale dimensions, reflecting the high

effectiveness of the educational program based on Play-Based Educational Program.

The results of the second research question, which states: " Are there statistically significant differences at the level of (0.05) in the mean scores of the motivation to Learn English Scale between the post-test and follow-up test among the experimental group?

To examine the extent of the differences between the experimental group's scores on the follow-up and post-test of the Motivation to Learn English Scale, a paired samples t-test was used. The results are presented in Table (6).

Table (6): Differences between the experimental group's post-test and follow-up scores on the Motivation to Learn English Scale.

Dimension	Groups	N	Mean	standard Deviation	t-value	Significance Level (Sig.)
Interest and Attraction to the Subject	Experimental – Post-test	10	2.500	0.208	-0.141	0.891
	Experimental – Follow-up	10	2.517	0.214		
Perseverance and Effort	Experimental – Post-test	10	2.400	0.274	-0.142	0.891
	Experimental – Follow-up	10	2.383	0.273		
Positive Orientation toward Learning	Experimental – Post-test	10	2.450	0.261	- 0.349	0.735
	Experimental – Follow-up	10	2.483	0.277		
Total Scale Score	Experimental – Post-test	10	2.450	0.171	- 0.067	0.948
	Experimental – Follow-up	10	2.456	0.173		

Note: The critical t-value at a significance level of 0.05 and degrees of freedom (df = 9) is ± 2.262 .

Results of the paired-sample t-test revealed that there are no statistically significant differences at the 0.05 significance level between the mean scores of the experimental group on the post-test and follow-up administrations of the motivation scale for learning English.

The calculated t-values for all dimensions were lower than the critical values, and the associated significance levels (Sig) exceeded 0.05, indicating stability in students' motivation after a period of time following the intervention. The follow-up means scores ranged between 2.400 and 2.500, nearly identical to the post-test means, suggesting that the observed improvement in motivation was not temporary or superficial but maintained over time—an indicator of the program's long-term educational impact.

Discussion

The results showed that there are statistically significant differences between the mean scores of the experimental group in the pre- and post-measurements on the Motivation to Learn English Scale, with the differences favoring the post-test. This improvement can be attributed to the interactive nature of the program, which was designed to address the developmental and emotional characteristics of children aged 9–12, while considering the complex

psychological and social context in the Gaza Strip. The program included engaging and movement-based educational activities—such as physical play, role-playing, group tasks, storytelling, and music—which made learning more attractive, flexible, and spontaneous, transforming the learning environment from passive reception to active participation.

This was evident in the marked increase in the “Interest and Attraction to the Subject” dimension mean score from 1.300 to 2.500 ($t = -15.429$, $p = 0.000$), aligning with Dörnyei's (2001) emphasis on supportive learning environments, and Isenberg & Jalongo's (2014) findings that learning through play enhances attention and intrinsic motivation. Similarly, the “Perseverance and Effort” dimension mean score rose from 1.417 to 2.400, likely due to the creation of a safe competitive environment and the continuous use of positive reinforcement, consistent with Deci & Ryan's (1985) Self-Determination Theory, which posits that fulfilling learners' needs for autonomy, competence, and relatedness increases intrinsic motivation and persistence.

The “Positive Orientation Toward Learning” dimension increased from 1.383 to 2.450, which can be explained by the program's provision of repeated success opportunities and freedom for self-expression, thereby enhancing

learners' L2 self-confidence as described by Gardner (2010). The activities incorporated multi-sensory inputs—such as interactive flashcards, role-play, and songs—that strengthened learners' connection to the content and their sense of achievement.

From a contextual perspective, the program offered a dual educational–therapeutic role within Gaza's challenging environment, providing children with a safe outlet for expression, play, and learning. This finding aligns with Al-Harbi and Al-Obaiki's (2024) research on the effectiveness of interactive programs in difficult contexts, Al-Qalawi and Ababneh's (2022) study on the impact of language play on achievement and motivation, and Al-Nahood (2004) evidence for the role of play-based learning in increasing participation.

While the single-group design may limit the ability to attribute the observed effect solely to the program, the convergence of quantitative evidence (large differences and high effect sizes), qualitative observations (field notes), and the alignment of results with theoretical and empirical literature strongly supports the conclusion that the program played a central role in enhancing children's motivation to learn English under the difficult conditions they face.

Regarding the second question, the results indicated that there are no statistically significant differences between the mean scores of the experimental group on the post-test and follow-up administrations of the motivation scale for learning English. The stability of the experimental group's results between the post-test and follow-up measurement indicates that the improvement brought about by the program was not a temporary effect or a mere immediate response to a novel teaching style, but rather the outcome of a fundamental change in learners' internal motivational structure. According to

Gardner (2010), genuine motivation to learn a second language arises from the interaction of positive attitudes, intrinsic desire, and long-term commitment; together, these elements explain the persistence of the program's impact beyond the instructional intervention.

The findings also support Deci and Ryan's (2000) Self-Determination Theory, which asserts that learning becomes more sustainable when it meets learners' basic needs for autonomy, competence, and relatedness. The program fulfilled these needs through interactive activities that granted children creative freedom, enhanced their sense of accomplishment, and engaged them in a cooperative learning environment.

From a pedagogical perspective, this stability aligns with Vygotsky's (1978) social constructivist theory, whereby social interaction through group play and role-play fosters deeper cognitive and emotional connections, strengthening learning retention. Furthermore, as Isenberg and Jalongo (2014) suggest, the integration of multi-sensory activities supports the storage of both knowledge and attitudes in long-term memory—especially when combining visual, auditory, and kinesthetic inputs—an approach effectively implemented in the program.

In terms of motivation, incorporating elements of enjoyment and challenge, as recommended by Dörnyei (2001), creates a “sustained motivation loop” in which positive experiences remain associated with the subject long after the program ends. This was evident in the t-test results, which showed no statistically significant differences between the post-test and follow-up measurements, with very close mean scores (2.400–2.500), reflecting the learners' ability to maintain the

motivational levels achieved during the program.

The researcher attributes this stability to the fact that the program did not merely teach surface-level skills but fostered a positive relationship between the child, the learning environment, and the English language. This was accomplished through activities—such as songs, stories, play, and interactive exercises—that could be repeated outside the classroom, reinforcing self-practice and sustaining motivation. The accumulation of positive learning experiences during the sessions transformed children's perception of English from a source of anxiety into an opportunity for fun, discovery, and self-expression.

These results are consistent with previous studies, including Al-Harbi and Al-Obaiki (2024), Ahmed (2023), Al-Ruwaili (2023), Hammoudi (2023), and Al-Nahood (2004), all of which confirmed that Play-Based Educational Program and interactive techniques enhance motivation and ensure the long-term retention of learning effects.

Therefore, the absence of significant differences between the post-test and follow-up measurements in this study is a positive indicator of the program's effectiveness and the sustainability of its impact, as it combined marked improvement between the pre- and post-tests with the maintenance of gains in the follow-up—a pattern that represents the optimal outcome for effective educational program.

Limitations of the study

The main limitation of this study lies in the small sample size (10 children) and the absence of a control group due to the realities of war and displacement in Gaza. Thus, the findings are preliminary and exploratory, and future research with larger samples and more stable

conditions is recommended to enhance validity and generalizability.

Despite these limitations, the study provides an important scientific and practical contribution, as it is one of the few studies addressing play-based learning in the context of war. It opens the door for researchers and educators to develop similar programs that can enhance children's motivation to learn in crisis-affected environments, making it a valuable addition to the educational literature.

Conclusion and future implications

Adopt play-based educational program in teaching English to children, given the significant impact demonstrated by the results in enhancing intrinsic motivation for learning, strengthening positive attitudes toward the subject, and fostering perseverance in completing tasks.

Train lower primary school teachers on using play as an effective pedagogical approach in language instruction, through practical training programs that integrate both psychological and instructional aspects, while taking into account the developmental characteristics of the target age group.

Design engaging, interactive curricula and activities that incorporate practices such as role-play, educational songs, flashcards, and illustrated stories, with the aim of increasing learners' attraction to the language and reducing anxiety associated with learning it.

Include a "motivation to learn" component as a key evaluation indicator when measuring the effectiveness of educational programs, alongside academic achievement, given that motivation is the main driver for sustaining learning.

Encourage future research to expand on measuring the long-term sustainability of play-

based learning program outcomes, and to analyze the factors that contribute to maintaining or diminishing this effect over time.

Disclosure Statement

- **Ethical Approval and Consent to Participate:** Verbal consent was obtained from all participants after clearly explaining the study objectives and the purpose of using play-based activities to enhance English language learning.
- **Availability of Data and Materials:** The data used in this study are available with the researcher and can be provided upon request.
- **Author Contribution:** The researcher designed the study, collected and analyzed the data, and wrote the manuscript, approving the final version for publication.
- **Conflict of Interest:** The author declares that there is no conflict of interest related to this research.
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References

- Abdel Jawad, M. Y. (2020). *The effect of using educational play in developing oral reading skill among second-grade students in Al-Quwaysmah District* (Unpublished master's thesis). Middle East University, Jordan.
- Abu Daqa, S. I., & Safi, S. K. (2013). *Practical applications using SPSS in educational and psychological research*. Islamic University, Gaza.
- Ahmed, M. A. M. (2023). The effect of using play-based learning strategy in teaching English on developing critical thinking skills among eighth-grade students in Jerash Directorate of Education. *Journal of the Faculty of Education*, 39(2), Part 2, 55–78.
- Al-Araimi, K. K. A. (2021). The difficulties students face in learning English language skills: A descriptive survey study in light of research findings. *Arab Journal of Human and Social Sciences*, Jordan, (9), Part 3, 1–44.

- Al-Anzi, A. H. A. (2024). The effectiveness of teaching using fixed learning strategies in increasing English vocabulary among first-year high school female students. *International Journal of Research in Educational Sciences*, 7(1), 107–131.
- Al-Harbi, W. A. D., & Al-Obaiki, W. I. (2024). The effectiveness of using illustrated short stories strategy in teaching English on developing listening skills and learning retention among sixth-grade female students. *Arab Journal of Educational and Psychological Sciences*, 8(39), 639–675.
- Al-Hayti, A. F. (2018). *Educational psychology and its applications*. Amman: Dar Al-Thaqafa.
- Al-Heela, M. M. (2012). *Educational games and their psychological, pedagogical, and scientific production techniques*. Amman: Dar Al-Maseera.
- Al-Maghazi, I. M. (2001). Play and creativity in early childhood. Suez Canal University.
- Al-Muhamid, S., & Al-Ghazou, K. M. (2022). Using metacognitive skills and academic motivation according to the MUSIC model to predict teaching competence among English language teachers in Ma'an Governorate. *Middle East Journal of Educational Sciences*, 2(3), 71–103.
- Al-Masoudi, M. H. M., & Al-Hadawi, S. T. (2018). *Teaching strategies in constructivism, cognitivism, and metacognition*. Amman: Dar Al-Ridwan.
- Al-Nahood, A. M. (2004). *The effect of play-based learning on developing reading skills in English among second-grade students* (Unpublished master's thesis). Al al-Bayt University, Jordan.
- <https://search.emarefa.net/detail/BIM-319914>
- Al-Qalawi, A. M., & Ababneh, I. A. (2022). The effectiveness of using language play in improving reading skills in Arabic among resource room students in the lower basic stage in Jordan. *Abaath Journal*, 7(2), 523–546.
- Al-Ruwaili, N. S. (2023). The effectiveness of AI applications in developing phonemic awareness in the English curriculum among sixth-grade female students. *Educational Journal*, 37(148), 117–145.
- Al-Sanafi, B. H. A. (2023). English language learning strategies and their relationship to learning motivation among primary school female students in the State of Kuwait. *Journal of the Faculty of Education*, Assiut University, 39(4), 81–102.
- Al-Sayigh, A. A. (2008). *The Relationship between Locus of Control and Learning Styles with Classroom Learning Motivation in the Negev Region*. (Unpublished Master's Thesis), Amman Arab University, Jordan.
- Al-Shammari, B. T. (2019). The effectiveness of gamification strategy in enhancing motivation to learn English among high school students in Hail. *Journal of the Faculty of Education*, 35(5), 574–602.
- Al-Sharif, F. M. A., & Fallatah, A. M. A. (2022). The effect of using educational digital play in developing English grammar among first-intermediate female students in Makkah. *Arab Foundation for Education, Science, and Arts*, 6(23), 433–469.
- Al-Suweirki, M. A. (2005). *Language games and their role in developing Arabic language skills*. Irbid: Dar Al-Kindi.

- Belhadji, F. (2024). *The effectiveness of a training program based on language play in developing linguistic skills among kindergarten children* (Unpublished doctoral dissertation). Algeria.
- Hammoudi, I. S. (2023). The effect of using play as educational tools in teaching English as a foreign language on the achievement of middle school students. *Al-Fath Journal*, 45, 41–49.
- Ibrahim, M. (2007). The effectiveness of a training program based on metacognitive strategies in developing critical thinking skills. *Journal of the Faculty of Education*, Al-Azhar University, 132(2), 231–267.
- Nasrallah, L. (2022). *Motivation towards learning English and its relationship to motivational learning styles among primary stage students in the State of Kuwait*. Faculty of Education, Department of Research and Scientific Publishing, 38(12), 122–143.
- Rabay'a, Z. H. (2018). *The effectiveness of an educational program based on play in improving social skills and achievement motivation among lower basic stage students with learning difficulties enrolled in resource rooms* (Unpublished master's thesis). An-Najah National University, Palestine.
<https://hdl.handle.net/20.500.11888/14809>
- Tammam, A. F. M. A. (2015). *The effect of using electronic play on developing intuitive English language skills among first-grade female students* (Unpublished master's thesis). Middle East University, Jordan.
- Younes, B. O. (2015). *The effect of using educational play in developing some mathematical thinking skills and attitudes among third-grade students* (Unpublished master's thesis). Islamic University, Palestine.
<https://search.emarefa.net/detail/BIM-611586>
- Dörnyei, Z. (2001). *Teaching and researching motivation*. Pearson Education.
- Gardner, R. C. (2010). *Motivation and Second Language Acquisition: The Socio-educational Model*. New York: Peter Lang Publishing.
- Henao, P. A. (2020). The role of play to motivate the process of learning English as a foreign language of students from 3 to 6 years old. Universidad Nacional Abierta y a Distancia.
<https://repository.unad.edu.co/jspui/bitstream/10596/34493/1/pahenaoa.pdf>
- Isenberg, J. P., & Jalongo, M. R. (2014). *Creative thinking and arts-based learning: Preschool through fourth grade*. Pearson.
- Piaget, J. (1962). *Play, dreams, and imitation in childhood*. New York: Norton
- Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications*. Merrill/Prentice Hall.
- Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1991). A Manual for the Use of the Motivated Strategies for Learning Questionnaire (MSLQ). National Center for Research to Improve Postsecondary Teaching and Learning.
- Tekman, T. K., & Yeniasır, M. (2023). The impact of play-based learning settings on reading, writing, listening, and speaking skills. *Sustainability*, 15(12), 19–94.
- Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.

https://doi.org/10.1207/S15327965PLI1104_01

- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- UNICEF. (2022). Children in conflict zones report. [Online publication]
- Wikipedia contributors. (n.d.). Learning through play. In Wikipedia. Retrieved August 13, 2025, from https://en.wikipedia.org/wiki/Learning_through_play