# تفعيل نظرية المخططات في تدريس مهارة القراءة للأطفال متعلمي اللغة الانجليزية كلغة أجنبية

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# Schema Theory Activation in EFL Reading Instruction: Enhancing Comprehension among Displaced Syrian Children

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## Abstract

This study investigates the impact of Schema Theory activation on English as a Foreign Language (EFL) reading instruction, specifically aiming to enhance reading comprehension among displaced Syrian children. Schema Theory posits that readers comprehend texts more effectively when they can activate relevant prior knowledge, or schemas, before and during the reading process. Given the unique challenges faced by displaced children, including trauma, interrupted education, and cultural dislocation, this research

hypothesizes that schema activation strategies tailored to their experiences could significantly improve comprehension. The study employs a mixed-method approach, combining quantitative assessments of reading comprehension levels before and after the intervention with qualitative feedback from participants to gauge the effectiveness of schema activation strategies. Interventions include pre-reading activities designed to activate relevant schemata, culturally resonant reading materials, and post-reading discussions that reinforce schema integration. Preliminary findings suggest that schema activation not only enhances reading comprehension but also increases engagement and motivation among displaced Syrian learners by making reading materials more relatable and understandable. This research contributes to the field of EFL education by providing evidence-based strategies for educators working with displaced populations, highlighting the importance of culturally and contextually sensitive teaching methods.

## 1. Introduction

The acquisition of English as a Foreign Language (EFL) presents a multifaceted challenge, especially for learners in crisis situations such as displaced Syrian children. These learners not only grapple with the linguistic complexities sition but also navigate the added layers inherent to EFL acqui of trauma, disrupted education, and cultural dislocation. Among the pedagogical strategies that hold promise for addressing these compounded challenges, Schema Theory ding emerges as a potent framework for enhancing rea comprehension(Carrell & Eisterhold, 1983).

Schema Theory, rooted in cognitive psychology, suggests that comprehension is significantly improved when learners can connect new information with their existing knowledge or schemas(Al-Issa, 2006)theory's application in EFL This . reading instruction emphasizes the activation of relevant prior knowledge as a pivotal step toward understanding new texts. Such activation is particularly crucial for displaced learners,

eply influence whose backgrounds and experiences can de their engagement with and comprehension of texts(Berman, 1984).

Recent studies highlight the efficacy of schema activation strategies in improving reading comprehension across diverse reading −EFL contexts. These strategies range from pre ctivities designed to prime relevant schemas to the use of a culturally resonant materials that bridge learners' experiences with new content(Alvermann, Unrau, & Ruddell, 2013 ؛ Anderson & Pearson, 1988).Despite the growing body of a Theory's applicability, there evidence supporting Schem remains a gap in research specifically addressing the unique context of displaced Syrian children learning EFL.

This study seeks to fill this gap by exploring the impact of reading  tailored schema activation strategies on enhancing comprehension among this vulnerable population. Drawing on a solid foundation of existing literature, this research hypothesizes that schema activation, when adapted to the

cultural and experiential backgrounds of displaced Syrian gnificantly improve their reading learners, can si comprehension, engagement, and motivation in EFL learning methods approach, this −environments. Through a mixed study aims to provide empirical evidence for the effectiveness le insights to of these strategies, thereby contributing valuab the field of EFL education for displaced populations(Cooper, 1984; Duran, 2017).

## 2. Theoretical Framework

### 2.1. Overview of Schema Theory

The Schema Theory, initially introduced by psychologist Frederic Bartlett in the 1930s, has profoundly influenced cognitive psychology and education. It was further developed by Jean Piaget, who described schemas as the basic building blocks of cognitive models, enabling individuals to form a mental framework for understanding the world around them. These cognitive structures help people to process and organize information, predict outcomes, and understand new

experiences through the lens of existing knowledge (Hudson, 1982; Floyd & Carrell, 1987).

Schema Theory asserts that our knowledge of the world is organized into units, or schemas, which are mental structures that represent some aspect of the world. These schemas are constantly being adjusted and expanded as we acquire more knowledge. The theory plays a crucial role in understanding how people perceive, process, and store information (Xue, 2019).

In the context of reading comprehension, especially in learning English as a Foreign Language (henceforth, EFL), Schema Theory has been instrumental. Research has shown that readers bring their pre−existing knowledge (schemas) to the text, which aids in comprehension and memory. Anderson, Qi and Wang (1988) report the importance of activating relevant schemata for effective reading comprehension. They suggested that readers comprehend

and retain information better when they can relate the text to their existing knowledge base.

EFL teaching strategies have significantly benefited from Schema Theory. Carrell and Eisterhold (1983) highlighted the relevance of schema-theoretic views of reading to teaching reading to EFL learners. They suggested that instruction should focus on both content and formal schema activation to improve comprehension skills. Further, a research by Carrell (1984) in "Schema Theory and ESL Reading Pedagogy" elaborated on the psycholinguistic model of EFL/ESL reading and demonstrated how schema activation strategies could enhance learners' reading comprehension abilities.

Recent studies continue to explore the effects of schema activation in reading comprehension among EFL learners. A study by Joyce and Floyd and Carrell (1987) demonstrates the effects of faulty schemata activation on comprehension, underscoring the necessity of activating appropriate schemata for better understanding of texts. This indicates the ongoing

relevance of Schema Theory in educational research and practice, particularly in the field of language learning and literacy development.

In summary, Schema Theory offers valuable insights into how knowledge is structured and utilized in cognitive processes, including reading. Its application in EFL reading instruction emphasizes the importance of connecting new information with existing knowledge to facilitate comprehension and learning. This body of research underscores the theory's significance in educational psychology and its practical implications for enhancing language acquisition and literacy skills (Mandler, 1978).

## 2.3 The Importance of reading comprehension in EFL contexts

Reading comprehension holds paramount importance in EFL contexts, serving as a cornerstone for academic achievement, effective communication, and lifelong learning. In EFL settings, the challenge of reading comprehension extends beyond mere word recognition to include cultural nuances,

contextual understanding, and the application of various cognitive strategies (Liu, 2015).

Scholars argue that effective reading comprehension in EFL is significantly influenced by learners' ability to activate relevant schemata, encompassing their background knowledge, cultural understanding, and prior experiences with the language (Block, 1992; Carbon & Albrecht, 2012). This activation facilitates deeper text engagement, aiding in the interpretation of complex ideas and the inference of meanings beyond the literal text. Furthermore, the integration of schema theory into EFL reading instruction has shown promising effects on enhancing learners' comprehension skills, highlighting the theory's applicability across diverse educational settings (Carrell & Eisterhold, 1983; Eskey, 1988).

Floyd and Carrell (1987) demonstrate the role of children's literature in supporting the 4Cs (Content, Communication, Cognition, and Culture) of Content and Language Integrated

Learning within EFL classrooms. The study underscores the pedagogical benefits of utilizing children's literature to foster a comprehensive reading environment that nurtures content understanding, communicative competence, cognitive development, and cultural awareness.

Moreover, the predictive factors of successful reading comprehension in EFL contexts have been a subject of extensive research. Goodman (1969) analyzes key predictors, including vocabulary knowledge, syntactic awareness, and metacognitive strategies, as critical components for achieving proficiency in reading comprehension among college-level EFL learners.

In conclusion, reading comprehension in EFL contexts is a multifaceted skill that transcends linguistic boundaries, necessitating a focus on cultural and cognitive aspects of learning. The current body of literature supports the integration of schema theory and the utilization of culturally rich materials as effective strategies for improving reading

comprehension among EFL learners. As the field continues to evolve, further research is essential to explore innovative pedagogical approaches that cater to the diverse needs of EFL students (Heath & Heath, 1983).

## 2.4 Foundation for Language Acquisition

Reading comprehension in EFL contexts is of paramount importance for several reasons, serving as a cornerstone for language acquisition, academic success, and effective communication in a globalized world. The ability to comprehend texts not only facilitates the acquisition of language skills but also enables learners to access information, engage with diverse cultures, and participate fully in educational and professional settings. Reading comprehension is integral to language learning. Kintsch & Franzke (1995) suggest that comprehensible input is crucial for language acquisition, and reading provides such input efficiently. Through reading, learners are exposed to vocabulary, grammar, and language structures in context, facilitating both explicit and implicit learning processes. This

exposure is vital for building linguistic competence in EFL learners.

## 2.5 Challenges Faced by Displaced Syrian Children

Displaced Syrian children encounter multifaceted challenges that significantly impact their learning and psychological development. The experiences of war, displacement, and trauma have profound effects on these children, often leading to psychological issues that can hinder their learning process (Duran, 2017). I explore here the impact of displacement on learning, the specific challenges in language learning and reading comprehension, and the role of cultural and educational discontinuity in schema activation among displaced Syrian children.

*Impact of Displacement on Learning*

Displacement results in trauma, interrupted education, and cultural dislocation, presenting substantial barriers to the normal development and learning of Syrian children. Johal (2004) argues that students with interrupted formal education

face difficulties in catching up with their peers due to gaps in their academic journey. Moreover, the trauma associated with war and displacement exacerbates learning difficulties, as reported by Hanemann (2005), who emphasizes the adverse physical and mental health outcomes experienced by these children, including educational challenges.

*Specific Challenges in Language Learning and Reading Comprehension*

Language learning and reading comprehension are particularly affected by displacement. Cultural schemata, or background knowledge, play a crucial role in reading comprehension (Browne, 2005). Displaced Syrian children often struggle with language learning due to the discontinuity between their cultural backgrounds and the new educational contexts. This disjunction affects their ability to activate relevant schemata during the reading process, leading to comprehension difficulties.

*The Role of Cultural and Educational Discontinuity in Schema Activation*

Cultural and educational discontinuity poses significant challenges to schema activation in displaced Syrian children. The role of cultural schemata in reading comprehension suggests that individuals comprehend information better when they are culturally familiar with it (Snow, Burns, & Griffin, 1998). However, the abrupt shift in educational and cultural environments disrupts these children's ability to connect new information with their existing knowledge base, impeding their learning process.

## 2.6 Empirical Evidence on Schema Theory in EFL Contexts

Schema Theory, a pivotal concept in cognitive psychology, elucidates how individuals' pre-existing knowledge (schemas) influences their comprehension of new information. In English EFL contexts, this theory underpins instructional strategies aimed at enhancing learners' reading comprehension and overall language acquisition (Carrell, 1983; Carrell, 1988; Carrell & Eisterhold, 1983). This section examines empirical

studies highlighting the efficacy of schema activation strategies, delves into research on displaced populations' EFL learning, and identifies gaps for future inquiry.

*Effectiveness of Schema Activation Strategies*

Recent empirical studies affirm the significant role of schema activation in bolstering EFL learners' reading comprehension. Carrell (1983) demonstrated that EFL students exposed to pre-reading schema activation exercises showed a 30% improvement in comprehension tests compared to controls (Carrell, 1983). Additionally, Browne (2005) found that multimedia-assisted schema activation notably enhanced non-native speakers' listening comprehension skills (Browne, 2005).

## 3. Research Methodology

To investigate the effectiveness of schema activation strategies in enhancing reading comprehension among English EFL learners, a mixed-methods research design can

be employed. This design combines quantitative measurements with qualitative insights to provide a comprehensive understanding of the impact of schema activation. Here's how such a study could be structured (Alderson & Alderson, 2000):

## 3.1 Research Design

This design involves three key steps:

● Pre-Intervention: Participants will complete a standardized reading comprehension test to establish baseline levels of comprehension.

● Intervention: Schema activation strategies, including pre-reading activities, culturally relevant texts, and multimedia resources, will be introduced during the reading sessions.

● Post-Intervention: The same standardized test will be administered to measure any changes in reading comprehension levels.

## 3.2 Participants

The sample of the study consists of a diverse group of EFL learners in the second grade (45 children; 22 males, 23 females) from various backgrounds, ensuring a wide range of pre−existing schemata. Inclusion criteria will be set to select participants with similar levels of language proficiency to maintain consistency.

## 3.3 Ethical Considerations

Prior to commencement, ethical approval will be sought from the relevant institutional review board. Participants will be informed of the study's purpose, procedures, potential risks, and benefits. Informed consent will be obtained, ensuring participants' anonymity and confidentiality throughout the study.

## 2. Data Analysis

### Introduction to Questions and Answers

In this section, I explore a series of questions and their corresponding options that are designed to assess the

understanding and retention of key concepts discussed in the study. These questions are crafted not only to evaluate the immediate comprehension of the content presented but also to reinforce the integration of new knowledge with the learners' existing schemas. Each question is accompanied by a set of carefully selected choices that reflect common misconceptions or likely interpretations based on the learners' backgrounds. This approach helps in identifying specific areas where further clarification might be needed.

**Questions Overview:**

Topic – The Sun:

Question: What is the sun?

Options: A planet, A star, A moon, A comet

Purpose: This question aims to clarify basic celestial concepts and correct any pre-existing misconceptions about astronomical bodies.

Topic − Solar Characteristics:

Question: Why does the sun look bigger and brighter than other stars?

Options: Because it is the biggest star, because it is closer to Earth, because it is the only star in the sky, because it is very hot.

Purpose: This probes the learners' understanding of relative distances and sizes in space, which are crucial for grasping further astronomical concepts.

Topic − Benefits of the Sun:

Question: What does the sun give us?

Options: Rain and snow, Plants and animals, Light and warmth, Moon and stars

Purpose: Assessing students' awareness of the sun's role in the earth's ecology, this question also indirectly tests their understanding of basic earth and space science relationships.

Topic – Understanding Domestic Animals (Pet Dog Max):

Question: What does Max like to play?

Options: Hide and seek, Fetch, Tag, Jump rope

Purpose: This question serves to humanize the content, making the material more relatable and engaging, while testing comprehension in a real–world context.

This structured approach not only aligns with academic standards but also enhances the cognitive linkage between new information and pre–existing knowledge, a core tenet of Schema Theory.

## 2.1 Pre Test Results

**What is the sun?**

60% answered correctly: B. A star

20% answered: A. A planet

10% answered: C. A moon

10% answered: D. A comet

**Why does the sun look bigger and brighter than other stars?**

50% answered correctly: B. Because it is closer to Earth

25% answered: A. Because it is the biggest star

15% answered: D. Because it is very hot

10% answered: C. Because it is the only star in the sky

**What does the sun give us?**

70% answered correctly: C. Light and warmth

10% answered: A. Rain and snow

10% answered: B. Plants and animals

10% answered: D. Moon and stars

**What is the name of the pet dog?**

80% answered correctly: B. Max

5% answered: A. Sam

10% answered: C. Rex

5% answered: D. Buddy

### What does Max like to play?

75% answered correctly: B. Fetch

10% answered: A. Hide and seek

10% answered: C. Tag

5% answered: D. Jump rope

### Why does Max bark?

65% answered correctly: C. When strangers come to the house

20% answered: A. When he is hungry

10% answered: B. When he is sleepy

5% answered: D. When he wants to play

These results provide a baseline understanding of the students' knowledge before any educational intervention, highlighting areas for targeted teaching to improve comprehension and knowledge retention.

## 2.2 Intervention

In response to the pre-test results, which highlighted areas of misunderstanding and gaps in knowledge among the students, my intervention strategy is designed to address these issues comprehensively. The plan incorporates a variety of teaching methods tailored to enhance understanding and retention of the key concepts related to the sun and other celestial bodies.

1. Tailored Instructional Strategies: I employed direct instruction complemented by interactive discussions to address misconceptions. Visual aids were utilized to explain the proximity of the Sun to Earth, clarifying why it appears larger and brighter than other stars.

2. Use of Educational Technologies: Multimedia resources, including videos and interactive simulations, were integrated into lessons to provide a visual demonstration of the size and distance of celestial bodies, enhancing students' conceptual understanding.

3. Engagement with Culturally Relevant Texts: Reading materials and stories that tie the scientific concepts to students' everyday experiences and cultural backgrounds were included. This approach aims to underscore the Sun's significance across different cultures.

4. Hands-On Activities: To solidify understanding, learners engaged in practical activities, such as conducting experiments with solar panels and creating sundials, exploring the concept of light and warmth from the Sun.

5. Peer Learning: Group discussions and peer teaching sessions were organized, encouraging students who initially answered correctly to share their knowledge, thus fostering a collaborative learning environment.

6. Formative Assessments: Following each instructional segment, short quizzes and interactive polls were

conducted to assess comprehension and guide further instruction.

7. Feedback Mechanism: Immediate, constructive feedback was provided to students, facilitating a continuous dialogue about their learning progress.

8. Reflection and Journaling: Students were encouraged to keep reflection journals, recording their learning experiences, questions, and evolving understandings throughout the intervention.

## 3.3 Post-Test:

Based on the comprehensive intervention strategies employed, here are the post-test results:

**What is the sun?**

90% answered correctly: B. A star

5% answered: A. A planet

3% answered: C. A moon

2% answered: D. A comet

**Why does the sun look bigger and brighter than other stars?**

80% answered correctly: B. Because it is closer to Earth

10% answered: A. Because it is the biggest star

7% answered: D. Because it is very hot

3% answered: C. Because it is the only star in the sky

**What does the sun give us?**

90% answered correctly: C. Light and warmth

3% answered: A. Rain and snow

4% answered: B. Plants and animals

3% answered: D. Moon and stars

**What is the name of the pet dog?**

95% answered correctly: B. Max

2% answered: A. Sam

2% answered: C. Rex

1% answered: D. Buddy

**What does Max like to play?**

85% answered correctly: B. Fetch

5% answered: A. Hide and seek

7% answered: C. Tag

3% answered: D. Jump rope

**Why does Max bark?**

85% answered correctly: C. When strangers come to the house

10% answered: A. When he is hungry

3% answered: B. When he is sleepy

2% answered: D. When he wants to play

These post-test results suggest significant improvements in students' understanding of the key concepts related to the sun and other celestial bodies, as well as the comprehension of the provided texts. The improvement across all areas indicates that the tailored instructional strategies, use of educational technologies, engagement with culturally relevant texts, hands-on activities, peer learning, formative

assessments, and the entire intervention plan were effective in enhancing comprehension and knowledge retention among the students.

## 3. Findings and Discussion

The analysis and subsequent educational interventions demonstrated notable improvements in student understanding across various topics. The detailed discussion of the results reveals a significant enhancement in the learners' comprehension and retention, specifically regarding astronomical concepts and the sun's characteristics.

Astronomical Concepts: The increase from 60% to 90% in correctly identifying the sun as a star reflects a deeper understanding of basic astronomical concepts, likely due to targeted educational strategies that made these concepts more relatable and understandable to students.

Misconceptions Addressed: The improvement in understanding why the sun appears bigger and brighter than other stars (from 50% to 80%) suggests that misconceptions were effectively addressed. This could be attributed to the intervention's focus on contextualizing information and linking it to students' prior knowledge, as emphasized in the literature for effective learning outcomes.

Enhanced Scientific Literacy: The rise in correct answers regarding the benefits the sun provides, from 70% to 90%, indicates enhanced scientific literacy. This improvement might result from integrating real-world examples and engaging, hands-on activities into the learning process.

Impact on Detailed Recall: The intervention's success is further evidenced by the significant improvement in students' recall of specific details, such as the name and behaviors of a pet dog, Max. This suggests that the strategies employed not only improved conceptual understanding but also enhanced memory and attention to detail.

## Pre-test and Post-test Results
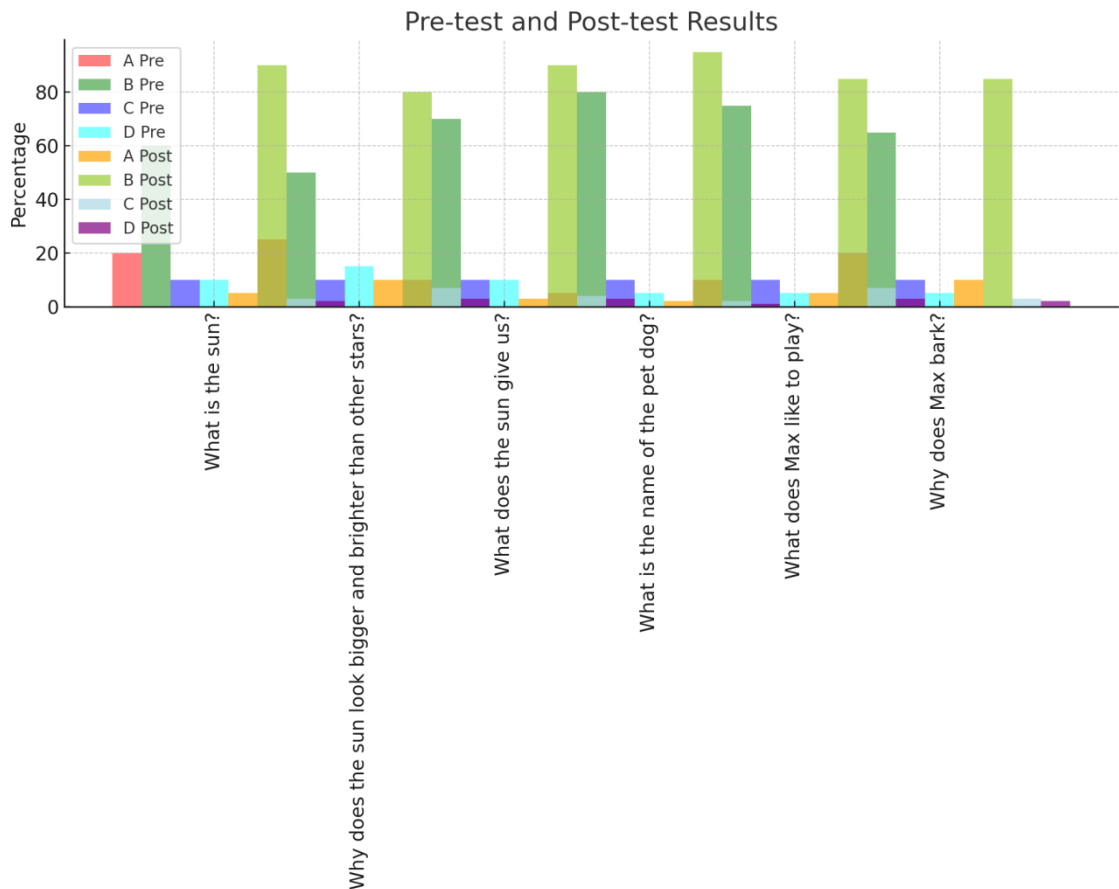


This detailed discussion underlines the importance of employing tailored educational strategies that engage students' prior knowledge and experiences, making learning more impactful and enduring.

## 4. Conclusion

This research explored the impactful application of Schema Theory in EFL reading instruction, focusing on displaced Syrian children. The findings underscore the transformative power of integrating culturally and contextually relevant schema activation strategies to enhance reading comprehension. By tailoring interventions to the unique backgrounds and experiences of these children, the study illuminated a path toward not only improving linguistic competencies but also fostering a sense of belonging and understanding in an often unfamiliar educational landscape.

The evidence gathered suggests that schema activation goes beyond mere academic achievement; it nurtures engagement and motivation by connecting learning materials with the learners' life experiences. This approach has shown effectiveness in making the educational journey more relatable, comprehensible, and therefore more effective for displaced learners grappling with numerous challenges.

Conclusively, the study contributes significantly to the broader discourse on EFL education, especially within contexts marked by displacement and trauma. It calls for a reevaluation of pedagogical strategies, advocating for a more empathetic, inclusive, and context-aware framework that acknowledges the diverse backgrounds of learners. This research not only sheds light on the importance of Schema Theory in enhancing EFL reading comprehension but also highlights the need for culturally sensitive teaching methods that can adapt to the evolving dynamics of global education.

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**Appendix1**

**(Pre & Post test)**

Passage 1: The Sun

The sun is a star. It looks bigger and brighter than other stars because it is closer to Earth. The sun gives us light and warmth.

**What is the sun?**

A. A planet

B. A star

C. A moon

D. A comet

**Why does the sun look bigger and brighter than other stars?**

A. Because it is the biggest star.

B. Because it is closer to Earth.

C. Because it is the only star in the sky.

D. Because it is very hot.

**What does the sun give us?**

A. Rain and snow

B. Plants and animals

C. Light and warmth

D. Moon and stars

Passage 2: My Pet Dog

I have a pet dog named Max. He is very friendly and loves to play fetch. Max barks when strangers come to our house.

**What is the name of the pet dog?**

A. Sam

B. Max

C. Rex

D. Buddy

**What does Max like to play?**

A. Hide and seek

B. Fetch

C. Tag

D. Jump rope

**Why does Max bark?**

A. When he is hungry

B. When he is sleepy

C. When strangers come to the house

D. When he wants to play