Hawlyat Al-Montada مجلة حولية المنتدى

I. S. S. N. Print :1998 - 0841 I. S. S. N. onlie :2958 - 0455 Doi 10.35519 /0828

Doi 10.35519/0828-000-065-020

Educational Gamification and Its Differential Impact on Pupil Engagement: A Comparative Study of Government and Private Schools in Basrah

اللعبيّة التربوية وأثرها التفاضلي على مشاركة التلاميذ
دراسة مقارنة بين المدارس الحكومية والخاصة في البصرة

Set by: Zainab Hadi Hasan Al Yassiry
znb_other@yahoo.com
General Directorate of Education in Basra
Open Educational College / Basra Centre
Ali Hasan Khammat Al Issa
alihkhammat@gmail.com
General Directorate of Education in Basra
Open Educational College / Basra Centre

زينب هادي حسن الياسري
المديرية العامة لتربية البصرة
الكلية التربوية المفتوحة / مركز البصرة
علي حسن خماط العيسى
المديرية العامة لتربية البصرة
الكلية التربوية المفتوحة / مركز البصرة

تاريخ الإستلام: 2025/7/12 تاريخ القبول: 2025/8/27 تاريخ النشر: 2026/1/1

Recevied: 12 / 7 / 2025 Accepted: 27 / 8 / 2025 Published: 1 / 1 / 2026

Abstract

This study explores the utilization of educational games and their effects on the development of learning skills among primary school students aged 6 to 8 years in both public and private schools in Basra. In an era where traditional teaching methods struggle to engage a generation accustomed to the fast-paced interaction of digital media, this research addresses the challenges educators face in maintaining student motivation and attention. The study is rooted in the context of the primary education sector in Basra, which is characterized by limited resources in governmental schools and a socio-economic landscape that often prioritizes immediate economic needs over

as well as to improve resources. By leveraging technology and fostering collaboration, educators can create a dynamic learning environment that supports children's development in Basra.

long-term educational goals. Drawing on the Engagement Theory, Cognitive Load Theory, and the Technology Acceptance Model (TAM), this research emphasizes the importance of integrating play-based learning strategies into early childhood education. Through a stratified sampling technique, a sample of approximately 200 students from diverse socio-economic backgrounds were selected to examine how educational games can bridge the engagement gap and support cognitive development in a digital age.

This study examined the challenges faced by pupils in Basra's government and private schools, particularly regarding engagement and technological integration. It revealed a strong link between teachers' experiences, and obstacles such as overcrowded classrooms, inadequate infrastructure, and socio-economic disparities, which hinder the use of educational games. To address these issues, a multifaceted approach is needed to enhance teachers' capabilities

ملخص

تستعرض الدراسة الحالية استخدام الألعاب التعليمية وتأثيرها في تنمية مهارات التعلم لدى طلاب المرحلة الابتدائية الذين تتراوح أعمارهم بين 6 و8 سنوات، في المدارس الحكومية والخاصة في البصرة. في زمن تعجز فيه طرق التدريس التقليدية عن جذب جيل معتاد على التفاعل السريع مع الوسائط الرقمية، يركز البحث على التحديات التي تواجه المعلمين في الحفاظ على دافعية الطلاب وتركيزهم.

تستند الدراسة إلى واقع قطاع التعليم الابتدائي في البصرة، الذي يعاني من موارد محدودة في المدارس الحكومية، وبيئة اجتماعية واقتصادية تعطي الأولوية غالبًا للاحتياجات الاقتصادية المباشرة على الأهداف التعليمية طويلة الأمد.

اعتمادًا على نظرية المشاركة، ونظرية العبء المعرفي، ونموذج قبول التكنولوجيا (TAM)، يؤكد البحث على أهمية دمج استراتيجيات التعلم

القائمة على اللعب في تعليم الطفولة المبكرة. وباستخدام أسلوب العينات الطبقية، تم اختيار عينة تضم نحو 200 طالب من خلفيات اجتماعية واقتصادية متنوعة لدراسة دور الألعاب التعليمية في تعزيز المشاركة ودعم التطور المعرفي في العصر الرقمي.
تناولت الدراسة التحديات التي يواجهها التلاميذ في مدارس البصرة الحكومية والخاصة، خاصة فيما يتعلق بالتفاعل والتكامل التكنولوجي. وأظهرت وجود علاقة وثيقة بين تجارب المعلمين والعوائق مثل الاكتظاظ، وضعف البنية التحتية، والفوارق الاجتماعية والاقتصادية التي تعيق توظيف الألعاب التعليمية. وللتغلب على هذه المشكلات، يُوصى باتباع نهج متعدد الجوانب يركز على تطوير مهارات المعلمين وتحسين الموارد. ومن خلال توظيف التكنولوجيا وتعزيز التعاون، يمكن للمعلمين خلق بيئة تعليمية ديناميكية تدعم نمو الأطفال في البصرة.

1.**Introduction**

In the present-day context, capturing and maintaining the attention of the children in the primary school stage has become an increasingly daunting task for educators. Teachers face the challenge of competing with the allure of electronic games and smartphones, especially in the early stages of primary education where children's foundational skills are developed. Their engagement and interaction with teachers and other students in the classroom have been radically altered by the extensive use of technology in day-to-day life. Studies have shown that children aged 6 to 8; often referred to as in the first three stages of primary education, exhibit shorter attention spans and a preference for fast-paced, interactive media (Goleman, 2013; Rosen, 2010). Research indicates that children are addicted to the instant satisfaction provided by electronic games and social media, where they see traditional instructional methods as slow and uninspiring (Kirkland, 2015). This can lead to disengagement and a lack of motivation to participate in traditional learning activities. For instance, a study conducted by Buttimer and Azzopardi (2015) revealed that elementary students frequently express frustration with

lessons that did not incorporate interactive or technology-driven elements, and these researchers highlight the need for educators to adjust their teaching strategies to accommodate more student engagement in their lessons.

At the same time, the American Academy of Pediatrics (2016) indicates that overexposure to digital devices has implications for cognitive development, and expresses concerns about attention deficits related to prolonged screen time. Young learners, who are used to dynamic environments provided by the digital world, may look for the same inspiration and excitement in the classroom contect too, and lack of it may make it difficult to capture their focus on educational content. This creates a critical need for using modern technology-based innovative pedagogical strategies to foster students' essential learning skills. In this context, integrating educational games into the curriculum presents an opportunity to bridge the gap between students' interests and the educational objectives of primary education. Educational games offer an approach that merges play and learning, renewing classroom experiences and keeping students engaged (Gee, 2007). Instead of competing against electronic games and smartphones, young learners' digital familiarity can be used to boost the learning process more enjoyable through educational games.

As this study seeks to explore the impact of educational games on developing learning skills among primary pupils in Basra, it is essential to acknowledge the specific context in which these learners operate. A recent study conducted by Al-Ghawi (2021) has indicated that increasing reliance on technology for entertainment necessitates re-evaluating teaching practices in Basra's public primary schools, especially considering the unique challenges posed by limited resources and varying levels of access to technology.

The present study focuses on comparing the effects of

educational games versus traditional instructional methods, and aims to contribute valuable insights into effective teaching strategies in a modern context. The investigation will address crucial questions such as how educational games can facilitate stronger engagement among primary school students who are used to electronic environments, and whether these tools can significantly enhance their learning experiences.

It is expected that this study would provide evidence-based recommendations for incorporating educational games into the primary curriculum, that supports fostering a more dynamic and practical learning experience for students in Basra's primary schools, may be beyond.

1.1Background

The milieu of Education in government schools in Basra is marked by several challenges, seriously impacting the effectiveness of teaching and learning. These schools have limited resources, including inadequate infrastructure, insufficient educational materials, and shortage of trained teachers. According to Al-Ghawi (2021), the scarcity of resources hampers the ability of educators to implement innovative teaching methods and engage students meaningfully. One prominent challenge is the large class sizes in many governmental schools, making it difficult for teachers to provide individualised attention to students (Rosen, 2010). This issue is further intensified by the diverse learning needs present in each classroom. Students display varying degrees of technological literacy and motivation, making it difficult to use traditional strategies that may not comply with the interests of today's 'digital natives' (Goleman, 2013).

The socio-economic context in Basra also affects educational experiences. Research indicates that many families prioritise immediate economic rewards over long-term educational advancement, impacting student motivation and attendance (Kirkland, 2015).

The detachment between school curricula and students' interests can further disengage learners from the educational process (Buttimer & Azzopardi, 2015). Given the increasing reliance on technology, integrating educational games into the curriculum could provide a valuable solution. As Gee (2007) highlights, educational games can foster a more engaging learning environment by merging play with educational objectives. However, the successful implementation of these tools is wholly dependent on addressing infrastructural challenges, such as access to technology and internet connectivity in government schools (American Academy of Pediatrics, 2016).

Moreover, teachers must receive adequate training and professional development to incorporate educational games effectively into their pedagogical practices. A study by Al-Ghawi (2021) emphasises the necessity of supporting teachers in understanding how to use digital tools to enhance student engagement and learning outcomes.

These facts explain that transforming the educational landscape in Basra's governmental schools requires a multifaceted approach; addressing resource limitations, aligning curriculum with student interests, and providing essential training for educators. Through these efforts, it is possible to cultivate an educational environment that equips students with the critical skills necessary for their future.

1.2 Purpose and Research Question of the Study

The aim of this study is to explore effective methods for integrating play-based learning into the early years of primary education in government schools in Basra. It seeks to identify strategies that enhance children's educational development, promote engagement, and foster essential skills such as creativity, and social interactions in a culturally relevant context.

In Basra, government schools play an important role in educating

young children. The local culture and social environment necessitate the use of effective teaching methods. One popular method is play-based learning, which keeps children engaged and helps them develop their capacity for thinking, expressing feelings, and improving social skills. As teachers in Basra work to improve learning results despite various challenges, it is important to find practical ways to use this approach. So, the key question is:

-*What strategies can be used to include play-based learning in the early years of primary education in government schools in Basra to support children's educational development?*

1.3 Significance of the Study

The significance of this study lies in its potential to improve educational practices in government schools in Basra. By focusing on play-based learning, the study aims to provide insights that can help educators create more engaging and effective learning environments for young children. This approach not only addresses the needs of children's development, but also aligns with current educational trends that recognise the value of play-based learning. Additionally, the findings can inform policymakers, teachers, and parents about the importance of incorporating play into the curriculum, ultimately benefiting children's overall educational experience and fostering lifelong learning skills.

1.5 Overview of Chapters

This research paper is organised into five sections, each serving a distinct purpose in the exploration of the research question.

1.Introduction: lays the ground-work for the study by providing essential background information that contextualizes the research. It articulates the purpose of the study, outlining the motivations behind the inquiry and the specific research questions that guide the investigation. Additionally, this section discusses the significance of the study, highlighting its potential contributions to the field, and concludes with an overview of

the subsequent chapters to orient the reader.

2.Theoretical Framework: presents a comprehensive literature review that lays the theoretical foundation of the research. It explores selected theories relevant to the study, including; Constructivist Learning Theory, Engagement Theory, Cognitive Load Theory, and the Technology Acceptance Model. By examining these theoretical perspectives, this chapter establishes a framework for understanding the variables and phenomena under investigation.

3.Methodology: details the research design employed in the study, including the identification of participants, the sampling method, and the data collection processes. The section elaborates on various instruments used, such as interviews and observation checklists, and outlines the strategies for data analysis. Ethical considerations and study limitations are also discussed, accompanied by a timeline that reflects the research progression.

4.Data Analysis: systematically presents the findings derived from the data collection phase. This section interprets the data in alignment with the research questions and theoretical framework, providing insights that emerge from the analysis.

5.Conclusion and Recommendations: synthesizes the study's findings, drawing conclusions based on the accumulated evidence. This final section emphasizes the implications of the research, offering recommendations for future research and practical applications that stem from the results.

The study is supplemented by references and an appendix that includes English versions of the questionnaires and the consent letter, ensuring transparency and accessibility for diverse readers.

2.Theoretical Framework

2.1 Literature Review

A comprehensive literature review is crucial for understanding the features of primary education, in governmental schools in Basra. This section will outline existing research on children's engagement with technology, the effectiveness

of educational games, and the specific challenges faced by governmental schools in Basra.

Children's Engagement with Technology

Children in their early stages of primary education, especially those in the age group 6-8 are becoming increasingly familiar with technology,reshaping their expectations for school education. Goleman (2013) highlights that children in this age group exhibit shorter attention spans, often prefer rapid and interactive activities that align with the instant satisfaction provided by digital media. This tendency is a challenge for educators in Basra's governmental schools, as traditional teaching methods used by them may not captivate students' interest (Rosen, 2010).

However, the varying socio-economic backgrounds of children in Basra determines the access to technology at home, leading to discrepancies in familiarity and engagement levels in the classroom. Children who are used to electronic devices may find traditional lessons that often rely heavily on rote memorization, and the passive learning environment, uninspiring. This can lead to students' disengagement from classroom education reducing the effectiveness of educational practices implemented in these schools.

Impact of Educational Games

Incorporating educational games into the curriculum can boost interest in education and enhance classroom engagement among young learners. A study conducted by Buttimer and Azzopardi (2015) demonstrates that elementary students engaged with interactive learning tools exhibit improved motivation and participation.

Gee (2007) declares that educational games can foster deeper learning by absorbing students in interactive environments that require critical thinking and problem-solving skills. This is particularly applicable to Basra's governmental schools, where educators struggle to maintain student interest in the conventional classroom settings. Introducing educational

games could regenerate the learning environment, capturing the attention of students used to the fast-paced engagement of digital games. Moreover, these games can be designed to align with local educational standards and curricula, ensuring that they support learning objectives while appealing to students' interests.

Challenges in Governmental Schools

Many researchers have highlighted several challenges faced by governmental schools in Basra. These schools often struggle with inadequate infrastructure, lack of teaching materials, and insufficient trained personnel (Al-Ghawi, 2021). This situation constraints educators' ability to incorporate innovative strategies, such as educational games, into their teaching. Varying socio-economic contexts in Basra too pose a serious challenge, where immediate economic contributions may be preferred over educational advancement by some families, impacting students' motivation and attendance (Kirkland, 2015). These challenges necessitate critically evaluating teaching practices within Basra's governmental schools. There is a pressing need for educational reform that addresses resource limitations while also embracing technology to enhance engagement among pupils in the early stages of education.

Pedagogical Strategies for Engagement

Effective pedagogical strategies are essential for bridging the gap between student interests and curricular goals in Basra's schools. Training educators on modern technology and interactive learning methods will be crucial in this aspect (American Academy of Pediatrics, 2016). Educators need to be equipped with the skills to create learning experiences that not only incorporate educational games, but also foster an environment that promotes student engagement. Further, contextualising educational games within the curriculum complement the traditional methods of teaching rather than replace it (McFarlane

et al., 2002). By using games as a supplementary tool, teachers can better engage students, making learning more relevant and enjoyable. This approach aligns with the notion that students are more likely to engage with material that feels related to their lives and interests.

2.2 Selected Theories

2.2.1 Engagement Theory

Engagement theory proposed by Kearsley and Shneiderman (1999), declares that learners must be meaningfully engaged in their activities to achieve better outcomes of learning. This theory underlines the significance of integrating educational games that represent students' interests, promoting active participation and sustained engagement. For teachers in Basra, adopting this approach could lead to more dynamic classroom environments and improved learning experiences.

2.2.2 Cognitive Load Theory

Sweller's (1988) Cognitive Load Theory highlights the importance of managing 'working memory' to optimize learning. Educational games can be designed to provide a platform that allows children to engage with content without exhausting them, thus facilitating a more effective learning process. The diverse learning needs of primary school students in Basra, necessitates adopting such strategies for maintaining student engagement and enhancing educational efficacy.

2.2.3 Technology Acceptance Model (TAM)

The Technology Acceptance Model (Davis, 1989) assumes perceived ease of use and perceived usefulness as key determinants of technology adoption. This model is relevant in Basra's government schools, where educators' acceptance and familiarity of educational games significantly influences their adoption. In this sense, understanding teachers' perceptions and addressing any barriers they may face will be crucial for promoting the integration of digital technology in

the classroom effectively.

In summary, the educational reality for students in government schools in Basra is characterised by unique challenges related to engagement and technological integration. An understanding of the theories related to educational games and learning is essential to determine the effectiveness of these games. By exploiting these theories and related research, educators can develop innovative strategies that comply with students' interests and needs to foster a more dynamic learning environment.

3. Methodology

3.1 Research Design

This study employed qualitative research methods to explore the impact of play-based learning through educational games on learning outcomes in primary pupils. A qualitative approach is useful for gaining an in-depth understanding of how these play-based learning methods affect student engagement and educational achievements (Creswell, 2014).

3.2 Participants

The target population for this study consisted of primary school students aged 6 to 8 years in Basra's primary schools. The research involved six teachers from Halimat Alsadiyyah government School and Al Awa'eel Private School. These teachers facilitated the researcher's observation of their classroom practices. The study's sample size included approximately 200 students drawn from these two distinct schools to ensure a diverse representation of demographics and access to technology (Marshall & Rossman, 2016).

3.3 Sampling Method

A stratified sampling technique was used to select participants, both from government and private schools in Basra, facilitating representation of students across various socio-economic backgrounds and levels of technological access (Babbie, 2020).

3.4 Data Collection

3.4.1 Observation Checklists

Classroom observations were conducted to assess student engagement, participation levels, and behaviour during lessons incorporating educational games compared to traditional teaching methods. The researcher employed structured observation checklists tailored to capture relevant aspects of student interaction and engagement (Fraenkel, Wallen, & Hyun, 2012).

3.4.2 Interviews

Semi-structured interviews were conducted with six teachers to explore their experiences and perceptions of implementing play-based learning strategies. These interviews provided valuable qualitative insights into the effectiveness of educational games in enhancing student engagement and improving learning outcomes, as noted by Rubin and Rubin (2012). Before the interviews took place, the researcher provided a comprehensive explanation of the study's objectives and methodologies to ensure that both the principals and teachers at the target school were properly informed. Additionally, prior consent letters were obtained from the participants to ensure ethical compliance.

3.5 Data Analysis

Qualitative analysis was conducted using thematic analysis to interpret the interview transcripts and observational notes. This approach allowed for the identification of common themes and patterns related to the perceptions of play-based learning and its impact on student engagement (Braun & Clarke, 2006).

3.6 Ethical Considerations

Informed Consent: Written consent was obtained from the headmasters of the target schools and participating teachers, ensuring transparency and ethical compliance.

Confidentiality: All collected data was treated with strict confidentiality, and the identities of participants were anonymized in the study.

Right to Withdraw: Participants were informed of their right to withdraw from the study at any time without facing any repercussions.

3.7 Timeline

The study period spanned to two months, aligned with the second course of the fourth stage of the college program. This timeline includes; initial planning, participant recruitment, implementation of the study, data collection, and subsequent analysis.

3. Data Analysis

The responses from the six teachers regarding the use of educational games in primary education yield a unanimous agreement on the positive impact of these tools on enhancing learning skills. All participants asserted that educational games could indeed improve the learning abilities of primary school students, reinforcing the idea put forth in the literature that such interactive tools foster active engagement and critical thinking.

As discussed under the literature review, Gee (2007), has emphasised the significance of educational games in creating interactive environments that stimulate problem-solving and deep learning. The unanimous "Yes" from participants of the current study correlates with Gee's assertion, suggesting that educational games could serve as a crucial element in transforming the educational landscape in Basra's schools by captivating students' attention and facilitating deeper cognitive engagement. Additionally, the comments from a private school teacher such as "Educational games provide a fun atmosphere that helps create an interesting learning environment" about incorporating educational games as part of a comprehensive and complementary educational strategy align well with Buttimer and Azzopardi's (2015), who indicated that students using interactive learning tools displayed amplified motivation and participation. This suggests

that in Basra, the integration of educational games could not only meet the immediate goal of enhancing learning skills but could also refresh the learning environment too. The alignment of educational games with local standards and curricula, as mentioned in the literature, reconfirms the assumption that these tools can support educational objectives while catering to the interests of today's technology-proficient students.

In sum, interview data from the teachers supported the literature, indicating that educational games are not merely supplementary tools but essential components in creating an engaging and effective learning atmosphere, particularly in primary education settings. This emphasises the necessity for schools in Basra to adopt educational games into their curricula to foster a more interactive and productive learning experience for students.

3.1 Enhancing Learning through Engagement Theory with Educational Games

The findings from the study conducted among participants from selected government and private schools reveal a strong consensus regarding the potential of educational games to enhance student learning. Participants echoed a common theme: that these games foster an engaging and interactive learning environment, particularly beneficial for students in the formative years of primary education.

How educational games contribute to improved learning outcomes can be critically explored through Kearsley and Shneiderman's Engagement Theory, which proposes that effective learning occurs when students are actively involved in activities that meet their interests and motivations. This theory emphasizes three key components: the necessity of collaboration, the relevance of tasks, and the importance of focused attention during learning experiences.

Educational games often incorporate elements that require teamwork and social interaction. The collaborative nature of many games compels students to work together towards achieving shared goals, thus requiring communication and exchange of ideas among each other. This social aspect not only enhances learning through interaction but also cultivates a sense of community and belonging among students. The integration of educational games that align with students' interests and curricular objectives can significantly enhance their engagement. When students perceive the game content as relevant to their learning goals, their motivation to participate increases. For instance, a teacher from Al-Awael School emphasized the importance of careful design of educational games to ensure that they effectively meet educational standards while being appealing to students. This alignment leads to increased motivation and cognitive involvement among students.

Another requirement proposed by the Engagement Theory for effective learning is maintaining students' concentration on learning activities. Educational games often provide a captivating environment that grab students' attention through its interactive nature that promotes active participation, while encouraging students to take initiative in their learning. This active engagement transforms passive learning into a more dynamic experience and serves a pivotal requirement for cognitive processing and retention of information.

The findings of the current study support the arguments put forth by the Engagement theory. Use of educational games in the classroom context can create a dynamic learning ecosystem. Teachers can cultivate an enriched educational environment that not only captures student interest but also supports deeper understanding and retention of knowledge. Educators in Basra's primary schools are encouraged to adopt educational games carefully designed to maximize

engagement, collaboration, and relevance, to achieve enhanced learning outcomes for students.

3.2 Educational Games for Curriculum and Equity Challenges in Basra Schools

The integration of educational games in primary school classrooms presents significant benefits, particularly for students in governmental schools facing various challenges. The current study reveals that these games serve as a vital tool to address both pedagogical and socio-economic obstacles.

Firstly, teachers highlighted how educational games can alleviate the complexities of lengthy and often complex curricula. This aligns with the previous study conducted by (Al-Ghawi, 2021), which underscores the struggles of governmental schools in Basra, especially their inadequate infrastructure and insufficient teaching materials. In such environments where traditional teaching methods may fail due to resource limitations, educational games offer an engaging alternative that can simplify learning concepts and grasp the attention of students. By transforming the learning experience into a more interactive and enjoyable process, educators can facilitate deeper understanding and retention of knowledge.

Furthermore, previous studies highlight the socio-economic disparities impacting students' education in this region. Teachers noted that educational games can help bridge individual differences stemming from economic backgrounds. For instance, economically disadvantaged children often attend under-resourced public schools, in contrast to the students from more affluent families who attend resource-rich private institutions. By implementing educational games in public schools, educators can create a more equitable learning environment ensuring that all students have the opportunity to benefit from education regardless of their socio-economic status. As mentioned by Kirkland (2015), socio-economic pressures often compel some families in Basra to

prioritize immediate economic gains over chasing after educational goals. This reality can negatively impact students' motivation to study and their attention, posing further challenges within the classroom. Educational games become helpful in this aspect too, as they can be designed in such a way to align with the pupils' lived experiences. By incorporating elements of play and competition, these games can reshape students' interest in learning and participation, thereby improving retention and attendance.

The benefits of using educational games in primary education, especially in governmental schools, extend beyond mere curriculum enhancement. They provide an innovative approach to engage students from diverse backgrounds, address resource limitations, and connect educational practices with the socio-economic realities of the students. The current study emphasizes the need for educational reform in Basra's governmental schools to integrate educational games in the curricula, which may serve as a key strategy in fostering a more effective and inclusive learning environment.

3.3 Educational Games for Reducing Cognitive Load and Enhancing Engagement

The insights provided by teachers who participated in this study align closely with the principles outlined in Cognitive Load Theory (Sweller, 1988), which highlights the importance of managing 'working memory' to optimize learning. The teachers' observations suggest that educational games create an engaging and purposeful learning environment that supports the effective management of cognitive load.

One teacher from Al-Awael School noted, "Educational games provide a fun atmosphere that helps create an interesting learning environment". This statement reflects the idea that a stimulating and enjoyable setting can facilitate better cognitive engagement without unnecessarily oppressing the students. This aligns with Sweller's assertion that managing working memory is vital for

optimizing learning.

Similarly, a teacher from Halima Al-Sa'deyyah School emphasized the impact of instructional games on cognitive load by stating, "Providing purposeful instructional games such as solving puzzles, identifying cards, and competitions... stimulate brainstorming." This highlights how these games not only challenge students but also promote critical thinking, thus echoing the need for strategies that reduce the irrelevant cognitive load on students while enhancing their genuine engagement.

Moreover, the incorporation of interactive and enjoyable educational experiences boost the thinking abilities of students. One teacher remarked, "By providing interactive and enjoyable educational experiences... we will have a clear strategy for reaching students' thinking more quickly at these early stages." This indicates a direct connection to the pedagogical strategies recommended by McFarlane et al. (2002), which emphasize embedding games within the curriculum to complement traditional instruction.

The teachers' comments underline the necessity of effective pedagogical strategies that engage students while acknowledging their cognitive limits. Incorporating teacher training focused on technology integration, as suggested by the American Academy of Pediatrics (2016), may equip educators to create dynamic learning experiences using educational games. This addition would not only facilitate a better connection to the material but also reduce cognitive overload, leading to a more optimized learning environment.

The teachers' insights verify the principles of Cognitive Load Theory and underscore the importance of educational games as a tool for enhancing cognitive engagement among primary school students. By effectively combining gameplay with curriculum goals, educators can create a more engaging and less cognitively taxing learning experience.

3.4 Teacher Challenges with Educational Games in Primary Schools

The possibility of integrating educational games in primary education within Basra's governmental schools faces many challenges shaped by the socio-economic realities of the region. These challenges or issues such as inadequate infrastructure, lack of teaching materials, and insufficiently trained personnel (Al-Ghawi, 2021) were already discussed under the Literature Review. These constraints significantly intervene with educators' ability to adopt innovative strategies like educational games, leading to a stagnant educational environment. Teachers in these schools echo the sentiments documented in the literature. For instance, a teacher from Halima Al-Sadia school expressed her concerns over a pressing issue regarding classroom dynamics: "One of the most significant challenges facing teachers that prevents them from using educational games in the classroom in government schools is the large number of students in a single class, which may reach 40-60 students sitting in a room that may be 20 square meters in size." Managing overcrowded classrooms and maintaining discipline is a huge challenge, particularly when the use of interactive educational games requires students to move around and engage with one another.

The physical conditions of the classrooms further contribute to lack of concentration among students. One teacher noted, "Students' lack of concentration results from uncomfortable seating, as one or four students may sit on one bench, causing them discomfort and an inability to hear the teacher and others easily". Such infrastructural deficiencies, combined with the high ratio of students to teachers, pose practical barriers to adopting more interactive pedagogies that could enhance engagement.

The socio-economic backgrounds of students also complicate the situation. In line with Kirkland

(2015), where families may prioritize immediate economic contributions over educational advancement, educators find it challenging to ignite student motivation and maintain consistent attendance. Adding to that, one teacher stated, "The large number of official and unofficial holidays and events disrupts the educational process and disrupts the communication of ideas for students, especially in the early stages of elementary school." This disruption further detaches students from their learning journey, making it difficult for teachers to foster a conducive environment for using educational games.

In contrast, teachers from private institutions, such as Al-Awael School, reported different but no less significant challenges. A teacher remarked, "One of the most important challenges I face is the length of the curriculum, which contains many chapters that require students to memorize, even orally." The intense focus on rote memorization leaves little room for the flexibility needed to incorporate educational games effectively. Another educator expressed difficulties in selecting appropriate games, stating, "I find it difficult to identify appropriate educational games that help develop learning skills based on the type of lesson and age group." This issue arises due to lack of experience, with one teacher noting, "The teacher's lack of experience is due to lack of training," which indicates the importance of teachers' professional development in facilitating innovative educational strategies.

Overall, inadequate infrastructure, limited time for lessons, and insufficient support from administration creates an environment less conducive to educational innovations, such as games. This reality necessitates a fundamental re-evaluation of educational practices and reform efforts that not only address resource limitations but also embrace culturally relevant strategies to enhance engagement and participation among students

in Basra's primary schools.

4.Implications and Recommendations

Observational Insights

The observations indicate significant disparities between private and government schools in Basra, particularly concerning physical resources and qualifications and well-being of teachers. Teachers in government schools experience exhausting workloads, often managing more than 260 students daily without adequate support or resources. This situation contributes to a lack of engagement in play-based learning strategies due to high stress and insufficient educational tools. In contrast, private schools are equipped with modern technology and ample educational resources, facilitating a conducive environment for play-based learning.

The Technology Acceptance Model (TAM) posits that perceived ease of use and perceived usefulness are critical factors influencing technology adoption in education. Applying TAM to the context of Basra's government schools suggests that strategies to implement play-based learning must prioritize teacher training and resource allocation. By enhancing educators' perceptions on the benefits and usability of play-based methods, we may facilitate a smoother integration of these practices. Effective training programs can empower teachers, equipping them with the necessary skills and confidence to incorporate interactive and play-based strategies into their lessons. Children's engagement with technology, as highlighted by Goleman (2013), suggests that modern educational strategies must relate to students' everyday experiences. To bridge the gap between traditional methods and students' expectations, educators in Basra should consider the following strategies:

1. Integrating Technology in Play-Based Learning

Utilising educational apps and platforms that promote play-based learning can engage students

effectively. Interactive games that encourage collaboration and critical thinking can align with the digital experiences students encounter outside the classroom.

2. Professional Development for Teachers

Training teachers to adopt play-based learning strategies focused on interactive and technology-enhanced activities will address barriers identified in the TAM framework. This could include workshops on how to design and implement play-based activities that integrate educational technologies, that gives confidence to teachers to introduce and use them in the classroom.

3. Creating Engaging Learning Environments

Modifying classroom environments to give space for students to be more interactive can foster play-based learning. This could involve providing designated areas for play and exploration, as well as ensuring classrooms are equipped with necessary resources and tools that facilitate active engagement rather than passive learning.

4. Collaborative Learning Experiences

Structuring classroom activities to promote peer interactions can help manage the large number of students in classes. Implementing group work that utilizes play and collaboration can make lessons more engaging, help break down the traditional rote memorization approach, and encourage student participation.

5. Community and Parental Involvement

Engaging parents and the community in play-based learning initiatives can further enhance students' educational experiences. Workshops or events demonstrating play-based learning methods can be beneficial, encouraging parents to support these strategies at home.

6. Incorporating Local Context and Culture

Tailoring play-based learning activities that reflect the cultural and social contexts of Basra can also increase relevance and engagement for students. Activities that incorporate local themes, folk

stories, or community issues can make learning more meaningful. In summary, effective integration of play-based learning into the early years of primary education in Basra's government schools requires a multifaceted approach that addresses resource limitations and enhances teacher capabilities. By leveraging technology, fostering engaging learning environments, promoting collaborative experiences, and involving the community, educators can create a vibrant educational landscape that not only aligns with modern expectations but also profoundly supports children's educational development. It is expected that these strategies, grounded in the observations made in this study, and supported by theoretical frameworks, would present a pathway towards effective, engaging, and enriching educational experiences for young learners in Basra.

References

Al-Ghawi, H. (2021). The impact of technology on education in Basra: Current perspectives and future directions. *International Journal of Educational Research, 110*, 101868. https://doi.org/10.1016/j.ijer.2021.101868

American Academy of Pediatrics. (2016). Media and young minds. *Pediatrics, 138*(5), e20163116. https://doi.org/10.1542/peds.2016-3116

Babbie, E. (2020). *The practice of social research* (15th ed.). Cengage Learning.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Buttimer, A., & Azzopardi, A. (2015). Disengagement in education: Students' perspectives. *International Journal of Educational Research, 72*, 182–193. https://doi.org/10.1016/j.ijer.2015.06.003

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.

Gee, J. P. (2007). What video games have to teach us about learning and literacy. *Computers in Human Behavior, 23*(1), 100–101. https://doi.org/10.1016/j.chb.2006.08.007

Goleman, D. (2013). *Focus: The hidden driver of excellence*. HarperCollins.

Kearsley, G., & Shneiderman, B. (1999). Engagement theory: A framework for technology-based teaching and learning. *Educational Technology, 39*(5), 20–23.

Kirkland, D. (2015). Engaging students in the digital age: The need for new approaches in teaching. *Journal of Youth and Adolescence, 44*(6), 1204–1227. https://doi.org/10.1007/s10964-015-0295-4

Kirkland, D. E. (2015). The challenge of attention: Strategies for dealing with shorter attention spans in young learners. *Educational Psychology Review, 27*(4), 675–692. https://doi.org/10.1007/s10648-015-9320-9

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). SAGE Publications.

McFarlane, A., Roche, N., & Siegel, M. (2002). The role of the game in learning: An evaluation of the first part of the project. In *Proceedings of the First International Workshop on the Impact of Digital Games on Education*.

Rosen, L. D. (2010). *Rewired: Understanding the generation and the way they learn*. Palgrave Macmillan.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). SAGE Publications.

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science, 12*(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4

Appendices

Appendix A: Interview Questions

A questionnaire on the use of educational games and their impact on developing the learning skills of primary school students in Basra's government and private schools.

Researchers' Names: Zainab Hadi Hasan.

Dr. Ali Hasan Khammat

Question 1: Can educational games improve the learning skills of primary school students?

1. Yes
2. No
3. Unsure

Question 2: How can educational games contribute to improving their learning?

Question 3:
What are the benefits of using educational games in classrooms for primary school students?

Question 4: Do you agree that educational games can motivate primary school students to learn?

1. Yes
2. No
3. Unsure

Question 5: How can educational games affect the cognitive load of primary school students?

Question 6: What challenges might teachers face when using educational games in classrooms for primary school students?

Question 7: How can the social and economic context influence the use of educational games to develop learning skills for primary school students?

Thank you for participating.

Appendix B. Consent Letter

"Consent letter to Participate in the Research"

Title of Project: " Educational Gamification and Its Differential Impact on Pupils Engagement: A Comparative Study of Government and Private Schools in Basrah".
Researchers' Names: Zainab Hadi Hasan, and Dr.Ali Hasan Khammat
Participant Number:

Please Initial the spaces:
I confirm that I have read the information sheet dated _____. I have had the chance to ask questions and understand everything about the study.

I understand that my participation is completely voluntary. I can choose to withdraw at any time without explaining why. If I decide to withdraw before finishing the interview, the information I have already shared will be deleted. If the researchers have already made an anonymous data set,

I understand that my data cannot be removed from that analysis.

I understand that the information about me can be used for future research and may be shared anonymously with other researchers.

I would like to receive a summary of the results of the study**: Yes, ___ No ___**

I agree to participate in this study.

Participant No.: _____

Date: _____

Signature: _____

Names of People Taking Consent: Zainab Hadi Hasan, and Dr.Ali Hasan Khammat.

Date: _____

Signature: _____


حولية المنتدى

محور دراسات
اللغة الإنكليزية