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Effect of Gamification on Students Learning Ability: An Experimental Study

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Abstract

Introduction: *The study investigated the impact of instructional games on the academic performance of 8th-grade English language students. The primary aim was to determine if educational games enhance English language acquisition and assess student engagement and commitment to these games.*

Methodology: *An experimental research design was employed, focusing on elementary students in Pakistani public schools. The sample comprised 179 boys from Islamabad Model School for Boys I-9/4. From 60 pairs of male students, one student from each pair was randomly selected for the experimental group. After one month, post-tests were administered to both the experimental and control groups. Data were analyzed using SPSS, t-tests, and one-way ANOVA.*

Results/Findings: *The study revealed that educational games significantly improved*

learning environments and English proficiency. They enhanced student interaction, autonomy, and collaborative learning. The games also provided versatile roles for easier language application and dynamically adjusted pacing to sustain motivation, outperforming traditional methods.

Future Direction: *Future research should explore the long-term effects of educational games on English language acquisition and their impact on different age groups and subjects. Additionally, examining the integration of advanced technologies in instructional games could further enhance educational outcomes.*

Key Words: Academic Success, Educational Games, Student Learning

Introduction

English has become a widely recognized speaking term in the world through trade, travel, and educational practices. It is also a vital international language (EFL) in many non-English speaking nations, where it is necessary for students to develop their speaking, reading, writing, and listening skills. Furthermore, it has become crucial to do research on enhanced, interactive, and progressive methods to facilitate genuine discoveries in genuine material, hence enhancing students' understanding and commitment to the learning process (Keisha, 2017). It's a common belief, according to Kuhn (2014), that games should be used in educational contexts primarily because they're enjoyable. Practically speaking, there is nothing wrong with it. Playing games helps learners become less anxious about making mistakes by lowering their affective filter and creating a calm environment. Growing advances in knowledge and information technology have impacted all facets of society, but education is one area where they have had the most impact. These advancements have changed the nature of education itself, its ramifications, and the personalities of its pupils. Because of this, a lot of educational centers are starting new paradigms to suit the needs of their students (Mohammad, et al., 2024).

Arslan (2016) stated that to increase the efficacy of learning activities, an Students should be given an environment that is high in stimulants. Computers are one of the things that can create such an environment. Donmus (2010) suggests that the growing use of computers in education has generated interest in educational games. This interest has led to the recognition that incorporating educational games into the teaching and learning process could be advantageous. According to a number of writers (Colby, 2015; Moberly, 2017; Owston, 2018), learning through games has the

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potential to be more pleasurable, affectionate, and effective than traditional learning approaches. According to Papastergiou (2017), educational games offer a variety of advantages over other forms of media-based instruction. Among these is that they are highly captivating, incorporate nature, and create a potential learning environment for a number of reasons, including (a) supporting effective, problem-based, experiential, and multisensory learning. Because students must apply previously acquired knowledge in order to move forward, (b) it supports a greater impact of necessary learning; (c) It can offer prompt feedback, encouraging students to test hypotheses and acquire knowledge from their experiences; (d) It can present new opportunities for self-assessment using scoring and level-approaching models; and (e) They form a cohesive social environment consisting of communities of players. The objective of educational games is to facilitate language acquisition through a variety of exercises (Shaptoshvili, 2015; Harb, 2016). "Educational games are very good for practicing languages as it gives a mode of what pupils used language in their real life," according to Zdybiewska (2017). According to (Hong, 2016), educational games have evolved into an essential tool for the teaching-learning process as a whole, with the potential to boost student extrinsic motivation. Both adult males and girls find tedious lessons exciting when they play educational games (Imran, Sultana, & Ahmed, 2023).

According to Richard-Amato (2018), educational games increase the likelihood that language will be used beyond only thinking about learning correct forms. They may also lessen students' anxiety and active sense of self. Games provide motivation and amusement. It gives those who are bashful the chance to express themselves on their own. Additionally, according to Amato-Richard (2018), games serve as a diversion from routine classroom activities, breaking the mould and serving as a springboard for fresh ideas (Hussain, et al., 2023). Consequently, games were not provided as an additional activity to fill in the gaps in the classroom during when the teacher had nothing productive to do. Either they taught foreign languages using the fundamentals. According to Ubirman (2018), "educational games foster fluency, teaching, and entertainment." If not, it should be used to help students appreciate the beauty of other languages rather than merely the seemingly insurmountable difficulties. According to Shevien et al. (2016), when students actively participate in a collaborative, promising environment, the quality of their educational experience is improved for every student. Although it is true that Pakistanis are eager to learn, there is a need for discussion due to the poor success rate in government institutions across the country. Due to

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the researcher's prior teaching expertise, the traditional methods used by instructors to teach English were viewed as a noteworthy aspect of the diagnosed issue.

According to Abo Oda (2010), increasing culpability can demoralize students by burdening them with complex designs that educate outside of context in a depressing environment that is unsuitable for cooperation and compliance. The researcher raises this issue in her capacity as an English as a Foreign Language instructor at the Local Academy in Islamabad. The problem may take on several forms, but numerous educators attest that Pakistan's educational system may incorporate novel approaches to address this problem and improve students' proficiency in English. According to the researcher, the Federal Directorate of Education is doing a commendable job of boosting student achievement in terms of new school dynamics (Ali, et al., 2023). Every school in the Islamabad district includes a computer lab with plenty of digital whiteboards for students to practice using computers. In light of the previous discussions, the researcher proposes a novel approach that includes several sets of instructional games to improve students' language acquisition of language 5 and to advance their English language proficiency in an engaging and enjoyable way. The carefully designed educational games could include several exercises related to the sixth-grade curriculum. Additionally, putting these ICT strategies into practice may improve the teacher's skill while also helping the students grasp English. Therefore, the study focuses on how playing educational games affects sixth-graders' English language proficiency at Islamabad Model School for Boys I-9/4 Islamabad.

Technology for Instructional Games

According to Kesha (2018), educational games have been studied since the late 1980s and categorized into many kinds. Games-based learning has been around for decades in developed nations. With today's sophisticated technologies, games have aided in the educational process of learning. The educational community now has access to new teaching tools in the form of digital instructional games. Games that are specifically made to teach people about a specified subject, help them improve their concepts, encourage their improvement, or help them master a skill while they play can be generically categorized as educational games. According to Gungormus (2016), we will study the various forms and concepts that underlie instructional games in-depth. The usefulness of games for education has long been a subject of debate. It's been observed that educational gaming is becoming a relevant industry, and conversations about it are focusing more

on various topics including game design, student progress and analysis, integration issues, and so on. Although the educational world is growing more receptive to the idea, it is still not mentally ready to embrace educational games as a method of instruction. Since we are interested in learning about educational games in this thesis, we will further categorize these games.

Educational Terminology in Video Games

According to Donmus (2010), the usage of educational games in today's classrooms is a must for making language instruction more effective. Computer TV, video, recorded amplifiers, mobile apps, and the internet are utilized in innovative educational games and to support language learning. 10 According to Dudeney and Hockely (2017), information communication innovation is becoming more and more effective when used in the classroom, and for several reasons, it might become a standard component of language instruction in the future. Through the utilization of diverse Information and Communication Technologies (ICTs) resources, students can expand their knowledge and proficiency in all four language domains: reading, writing, speaking, and listening.

Benefits of Educational GamesAccording to Dudeney (2016), the fundamental tenet of games in education is that they help teach players particular subjects and/or abilities. Learning is a complicated cognitive task that requires learners to put up constant effort. The main purpose of educational software is to support and motivate students, however in today's technologically advanced world, as both adults and children enjoy playing video games, learning through them is more engaging and difficult. Researchers who have carried out empirical studies have demonstrated that it is true. Hockley (2017) claims that there is a growing relationship between "fun" and "learning" in "educational games". Even by themselves, games are entertaining. People like to have fun when they do things. Learning is education. But "play" can also be a way to learn. These ideas were combined to create a new way of learning that involves exploration and enjoyment. It has been demonstrated that certain learning methods are more efficient and fruitful.

According to Prensky (2015), "play has a deep biological, evolutionarily important function, usually related to learning." Orwig (2018) claims that scientific research has demonstrated that learning is most easily accomplished when the body feels at ease, which is

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precisely what the educational games aim to do. Playing games is often enjoyable, which helps the player relax and improves their capacity for learning. Being creative is crucial. It is more crucial to use a player's inventiveness to achieve the game's objective. There are players, limits, artefacts, and winning conditions in every instructional game, and this is not an exception.

Technology Use in Psychological Contexts The narrative "I listen, I forgot totally; I saw, I remembered totally; I am doing, and I understand it totally" is shown by Sampaith, et al. (2017).

Sampaith (2017) states that it is evident when an instructor relies heavily on oral communication, it hinders students' ability to observe and comprehend, which causes them to pay attention but not pay attention. Conversely, if a pupil sees, they fully recall. It makes perfect logic that knowledge acquired through visual means will be accurate, vivid, and long-lasting. When someone does anything realistically, they engage in physical labor and use all of their senses to perceive information. This is what is meant by efficient learning. As a result, knowledge is transmitted through a variety of channels and is, by definition, accurate, thorough, and comprehensive. We refer to it as learning by first-hand experience. It is the best method for ensuring that students fully comprehend the material. According to earlier assumptions, a student benefited greatly from exposures when they were involved in their own interests and benefits. This interest is further enhanced when theories and concepts are introduced to the student through a chosen educational instructional medium that may be engaging to them in a variety of ways. Such a pupil will develop into an artist. As a result, text-based instructional computer games align with students' psychology because they encourage successful participation in goals that they find enjoyable.

Following table indicates change

Practices in Education	From	To
Practices in schools Instructors part	Teachers oriented Readers with actual that he may be the part of educational materials	Students oriented Collateral teaching
Learner’s part Instructional targets	Communication listening Target the reality	Master discovery Manipulating relevance to aid invention in performances
Knowing Cognition	Pending many concepts	Construct beneficiary

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Victory path	Remember in reality Evaluate Linear	Comprehensive class
Analysis	Normating context	Non-direct

(Effect of gamification thesis: Gordan, 2013).

Review of Related Studies

Educational Games Technology

According to Kesha (2018), educational games have been studied since the late 1980s and categorized into many categories. Games-based learning has been around for decades in developed nations. With today's sophisticated technologies, games have aided in the educational process of learning. The educational community has found a new tool in the form of digital educational games. Games that are specifically made to teach people about a specified subject, help them improve their concepts, encourage their improvement, or help them master a skill while they play can be generically categorized as educational games. According to Gungormus (2016), we will study the various forms and concepts that underlie instructional games in-depth. The usefulness of games for education has long been a subject of debate. It's been observed that educational gaming is becoming a relevant industry, and conversations about it are focusing more on various topics including game design, student progress and analysis, integration issues, and so on. Although the educational world is growing more receptive to the idea, it is still not mentally ready to embrace educational games as a method of instruction (Phulpoto, Oad, & Imran, 2024). Since we are interested in learning about educational games in this thesis, we will further categorize these games. seeing, it will be accurate, long-lasting, and colorful. When someone does anything realistically, they engage in physical labor and use all of their senses to perceive information (Oad, Zaidi, & Phulpoto, 2023). This is what is meant by efficient learning. As a result, knowledge is transmitted through a variety of channels and is, by definition, accurate, thorough, and comprehensive. We refer to it as learning by first-hand experience. It is the best method for ensuring that students fully comprehend the material. According to earlier assumptions, a student benefited greatly from exposures when they were involved in their own interests and benefits. This interest is further enhanced when theories and concepts are introduced to the student through a chosen educational instructional medium that may be engaging to them in a variety of ways. Such a pupil will develop into an artist. As a result, text-based instructional computer games align with

students' psychology because they encourage successful participation in goals that they find enjoyable.

Educational Language in Games

According to Donmus (2010), the usage of educational games in today's classrooms is a crucial component of making language instruction more effective. Computer TV, video, recorded amplifiers, mobile apps, and the internet are utilized in innovative educational games and to support language learning. According to Dudeney and Hockely (2017), information communication innovation is becoming more and more effective when used in the classroom, and for several reasons, it might become a standard component of language instruction in the future. Through the utilization of diverse Information and Communication Technologies (ICTs) resources, students can expand their knowledge and proficiency in all four language domains: reading, writing, speaking, and listening (Ahmed, Ahmed & Buriro, 2023).

Educational Games Benefit

According to Dudeney (2016), the fundamental tenet of games in education is that they help teach players particular subjects and/or abilities. Learning is a complicated cognitive task that requires learners to put up constant effort. The main purpose of educational software is to support and motivate students, however in today's technologically advanced world, as both adults and children enjoy playing video games, learning through them is more engaging and difficult. Researchers who have carried out empirical studies have demonstrated that it is true. Hockley (2017) claims that there is a growing relationship between "fun" and "learning" in "educational games". Even by themselves, games are entertaining (Imran & Akhtar, 2023). People like to have fun when they do things. Learning is education. But "play" can also be a way to learn. These ideas were combined to create a new way of learning that involves exploration and enjoyment. It has been demonstrated that certain learning methods are more efficient and fruitful. According to Prensky (2015), "play has a deep biological, evolutionarily important function, usually related to learning." Orwig (2018) claims that scientific research has demonstrated that learning is most easily accomplished when the body feels at ease, which is precisely what the educational games aim to do (Imran, et al., 2023). Playing games is often enjoyable, which helps players unwind and improves their capacity for learning. Being creative is crucial. It is more crucial to use a player's inventiveness to achieve the game's objective. There are players, limits, artefacts, and winning

conditions in every instructional game, and this is not an exception. According to Orwig (2018), achieving this goal will help the player maximise their abilities and improve their chances of winning. There is a vast array of educational games available, including card games, board games, and computer games (Rehan, et al., 2024). This thesis focuses on video games. An augmented level of difficulty is typically present in each level of a computer game, so that players can play it for as long as possible. Different stages can also be employed in educational games to raise the difficulty of understanding as the levels rise, according to Gungormus (2016).

A Cooperative Approach to Learning

Keisha (2018) stated that despite the significant advancements that have been made in communication technology, educational games are still not commonly utilized in educational institutions. It could be the consequence of a number of various causes, such as the fact that not all educators and parents are completely convinced that educational games possess the potential to be beneficial to their students.

Abilities Acquired Through Communication

According to Stewart (2016), professionals in the field of gaming and relevant communities have suggested that playing games can help individuals develop their social and cognitive abilities. In order to use games as instructional instruments, however, it is necessary to have an awareness of the game skill that was built and the game stages that each individual prefers (Imran, Zaidi, & Rehan, 2024).

Educational Integration of Culture

According to Sampath (2017), pupils may be able to have a deeper understanding of cultures because to the quick advancement of innovation. For example, phonic communications facilitated communication between students and teachers in both domestic and international exchanges. For a variety of reasons, this method aids students in creating cultural bridges by educating them on shared problems. Delicateness According to Hockley (2016, p. 9), communication technology can motivate teachers and students by making learning engaging and fun. That is, students looked it up and were very committed to writing through educational games. Sampaith (2017) states that it is evident when an instructor relies heavily on oral communication, it creates barriers for students to notice things and events, which causes them to pay attention yet

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ignore. Conversely, if a pupil sees, they fully recall. It makes perfect logic that knowledge acquired through visual means will be accurate, vivid, and long-lasting. When someone is practicing anything practically, they are engaging in physical labor, and they are using all of their senses to perceive information. As a result, knowledge is transmitted through a variety of channels and is, by definition, accurate, thorough, and comprehensive. We refer to it as learning by first-hand experience. It is the best method for ensuring that students fully comprehend the material. According to earlier assumptions, a student benefited greatly from exposures when they were involved in their own interests and benefits. This interest is further enhanced when theories and concepts are introduced to the student through a chosen educational instructional medium that may be engaging to them in a variety of ways. Such a pupil will develop into an artist. As a result, text-based instructional computer games align with students' psychology because they encourage successful participation in goals that they find enjoyable.

Encouragement and Assistance for Ongoing Learning Motivations

Students' abilities and devotion were increased by e-learning, which also helps them become more independent learners. A key component of what makes educational learning possible is practice. Students can look up various portions at any moment to obtain the necessary characteristics and knowledge. On the other hand, it guarantees that educators receive information in line with their goals (Imran, et al., 2023).

Computer-Based E-Learning Resources

Computers are a major piece of instructional technology utilized in education, according to Smaldino et al. (2016). The computer plays a variety of functions in the curriculum, including that of instructor, learner, and learning aid. Computers are used as multitasking tools in education because they are thought of as effective devices that help with frequent multitasking, such as writing and storing large amounts of data. It can therefore handle everything. The points that shaded lightened this multipurpose instrument are as follows:

P.C. As A Teacher

According to Newbey et al. (2016), a PC is a gadget that delivers students orders directly. This kind of utilisation is typically referred to as Computer-Based Instruments (C.B.I.), P.C. assistance instruction (PAI), Instructive materials, various media (audio, video, graphics, and text),

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assignments, quizzes, and scenarios can all be included. On the other hand, interactive exercises necessitate student participation and are evaluated through response analysis.

Flexibility and Equality

Smaldino (2016) described how the communication network made it easier for people to quickly browse and skim electronic content. Elastic learning is shown by e-learning, which allows students to learn in an environment that best suits their needs and at a time that works for them.

Acquiring Cooperative Education

As facilitators, the instructors might practise various teaching strategies with the help of the students to support and achieve collaborative learning, such as brainstorming through frequent conversations and problem-solving. answer, and look over appropriate feedback exercises.

Using A Computer to Learn

According to Smaldino et al. (2017), teaching students now involves opening doors for them to locate and creating peer learning experiences rather than just providing information. In this phase, P.C. technologies have been integrated. It is implied that teachers are shifting from the idea that school is a place for information acquisition to the idea that school is a place for learning how to learn. According to Abd Al-Azzez (2018), computers can function as both teachers and learners. It implied that the student becomes the computer's teacher and the machine becomes its learner. The user's goal is to teach computers to accomplish their goals. The user must learn how to accomplish the goal in order to obtain this element, and the computer must then be able to accommodate the achievement (Imran, Zaidi, & Khanzada, 2023)**.**

Instructions Related to English Language and Computers

The findings of Egbert and Jessup (2016) demonstrated that the instruction of English in schools is entirely distinct from the instruction of other courses, particularly for students who are enrolled in primary school. When dealing with the English textbooks, the professors of the English subject utilised specific directions because the students found it difficult to absorb the material and the textbooks themselves were difficult to understand. The computer has a significant impact on education, particularly with regard to the teaching of languages are:

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1. Information Gathering

2. An instructor providing instructional support There is experimental learning involved. Two-way dialogue, increased creative potential

3. Novel information is evaluated

4. Murphy (2018) enumerates the following learning outcomes that occur from using computers in the classroom:

1. Social Growth

2. Resolving the issue

3. Mentoring Fellows

3. Investigating.

4. As a result of using computers in the classroom to provide choices that start their activities, students now view computer technology as essential to active learning.

For them, this computing environment serves as a "memory of learning" (Murphy, 2018). Bennett (2017) described how he had gathered important information regarding the usage of computers in particular for foreign language instruction. In addition to supporting the learning environment, computers are expected to be an approved learning environment that helps students learn English more effectively than regular classroom texts. There are more opportunities to use computers in the classroom now that the educational system is shifting its focus to the social aspect.

Curriculum for Elementary Students Encompassing Computer Skills and English Language Learning

Curriculum is only one of the fundamental components of teaching and learning that have been controlled by current educational breakthroughs, as stated by Mcdonald and Hershman (2017). Additionally, curriculum is one of the most important aspects of education. When training students via computers, teachers must be prepared to use new hardware and software technologies. According to Morton (2015), the usage of computers in Native American classrooms facilitates the following learning processes: advanced technology. According to her, computers are a visual assistance that helps many students, especially those enrolled in special education, by providing

"concreteness." When given both verbal and visual cues, learners pick things up quickly; idea visualizing helped them see and remember it. Bennett also suggests that one additional advantage of computer use in the classroom might be the development of communication skills. Working in sets and groups, computers facilitated communication among students and encouraged a "team spirit" mentality. Bennett discovers that even when a task took a very long time, computers boosted students' motivation to finish assigned tasks (Hafeez, Iqbal, & Imran, 2021).

Methodology

Research design

In the present study, an experimental research design was utilized. A control group and an experimental group are required to be comprised of the pupils in order to accomplish this. In order to teach the subjects who were part of the experimental group, the strategy of educational games was utilized, whereas the subjects who were part of the control group were taught using the conventional technique. In experimental research, the researcher is responsible for manipulating at least one independent variable, controlling other relevant factors, and observing the impact on one or more dependent variables, as stated by Gay (2017). The research design was based on a two group's pretest and posttest design. The students were tested on words and sentence reading before and after teaching by traditional and through educational games instruction.

Sample	O1	X	O2

Sample = Grade 8th students from Islamabad Model School for Boys I-9/4 Islamabad

O1 = Pretest X = Educational Games Instruction O2 = Posttest

Population

The Population of this study was consisted of 8th grade (male) students at the Islamabad Table Model College for Boys I-9/4 for the year (2021-2022). The total population of the study was (179) students' male. Table 01 shows population and total No of students.

Table 1 Population

S. NO	Name of School	Total no of students
1	I.M.C.B G-8/4 Islamabad	179

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Source: School record on November, 11, 2022.

Sample and Sampling Techniques

The research experiment involved a sample of sixty male students who were divided into two groups for the duration of the investigation. One of the groups participating in the experiment consists of thirty children. All thirty male students in the control group are classified as individuals. In order to pick pupils from the eighth grade at Islamabad Model School for Boys I-9/4 Islamabad, the researcher employed a random selection approach. The researcher conducted the experiment using an advanced instructional technique that involved the use of educational games. The sample was selected using random sampling processes.

Table 2 Sample

S.NO	Name of School	Group	Experimental	Control	Total no of Students
1	I.M.C. B I-9/4	Male	30	30	60

Both groups were comparable in terms of their cultural, economic, and social statuses. The reason for this is that the sample was selected from the Islamabad Model School for Boys (I.M.C.B) I-9/4, which is situated in Islamabad. The statistical analysis of their academic performance throughout the 2021-2022 school year indicated that they achieved a well-rounded level of accomplishment across all areas. Moreover, the attributes of the age sample were carefully regulated prior to implementing the experimental methodology. This was accomplished prior to doing the experiment.

Hypothesis of the Study

There was no substantial difference between the experimental group, who acquired English through games, and the control group, who learnt English by the conventional way, in any meaningful element. A lack of significant correlation was found between the students who learnt English language through the use of games (the experimental group) and those who learned English language using the traditional technique (the control group). The researchers arrived at this conclusion (Ahmad, et al., 2024).

Tests of achievement

The researcher set up a pre-test, and a group of experienced teachers and managers presented their ideas and suggestions for determining the subject's level of performance. It was used as a posttest following the analysis and as a pretest prior to the research.

The test's overall objectives

The purpose of the exam was to gauge how the educational computer game strategy affected the participants' proficiency in the English language. It was constructed using the test specification's requirements.

The exam elements The test's items fit into the following categories.

E-Language (words and structures)

This scope includes fifteen items that assess students' applications, reasoning skills, and information awareness. Select the appropriate responses for the four categories that the items are divided into.

The test's validity

According to Al Agha (2016), a test is legitimate if it measures the things it is intended to measure. Both internal consistency validity and reference validity were employed in the study.

A) The Validity of Referrals

A panel of experts in English language and technique from NUML University, the Ministry of Education, as well as seasoned supervisors and educators from several Islamabad Model Schools run by the Federal Directorate of Education Islamabad, were exposed to the test. The exam items were changed in accordance with their suggestions.

B) The Content Validity

The broad aims of the material, the content analysis, the importance of learning through game skills, and the test objectives all influenced the design of the test requirements. The English curriculum for sixth graders consists of twenty units, each of which has four lessons: a reading lesson, a listening lesson, a language structures lesson, and a vocabulary lesson with a 25% weighting for each. These were used to represent the terms "structure" and "grammar lesson" in the test specification, and consequently in the test items. The test items for word structure and English grammar skill are in line with the syllabus's general objectives and the skill's nature.

Because structures are taught through application, the test items and cognitive levels identified by Bloom's Taxonomy are consistent.

C) The Validity of Internal Consistency

According to Al Agha (2016), the internal consistency validity shows how the test's whole normal and each item's level relate to one another. Additionally, it displays the correlation coefficient between each extension's normal and the overall normal. The Pearson Equation was utilised to ascertain its legitimacy. At levels (0.01) and (0.05), the relationship coefficient of everything inside its extension is enormous.

The test's dependability

When the test yields comparable results in the unlikely event that it is administered again under the same circumstances, it is considered reliable. The KR20 and Spilt-half techniques were used to measure the test's unchanging quality.

The program's validity for educational computer games

The researcher gave CD rounds of the first educational game plan to a group of English Language administrators and instructors in order to assess the games' validity. As advised by the specialists, the researcher made the appropriate adjustments.

1. The Words Story Game

At the pre-essential level, this group language game is used as an arouser. Its goal is to assist pupils in reviewing vocabulary related to the task. The tablet screen shows a list of letters. To complete and remember words, students must select and tap the appropriate letters on the tablet screen. Students collaborate in pairs. They immediately receive feedback on their solutions from the tablet. The team with the most correct responses wins.

2. The game Wonster Words

This word game is played during the preliminary phase. In order to finish the words in this game, pupils solve riddles and then rearrange the letters to form the new word. Furthermore, the game enhances the student's proficiency in transcription. The pupils are used to this straightforward and

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well-known game from their book. The team that solves every puzzle and correctly arranges the words in the shortest amount of time wins.

3. Words Hidden Game

The kids are familiar with this game because it is one of many in their exercise manual. The object of the game is for the learner to find a few hidden words that relate to a particular theme, either on a level or vertical plane. Each couple works together to find the hidden word and tap on each letter to reveal its surrounding letters. To find the words, the pupils work together. The winning group is the one with the most accurate discoveries.

The examination of the data

The information was gathered and processed using Pearson correlation (KR20), the Statistical Package for Social Sciences (SPSS), and The validity and reliability of the test were verified using the split half coefficients of the test domains. Conversely, the T-test and One Way ANOVA were employed to quantify the statistical disparities in mean between the experimental and control groups as a result of the teaching methodology and the English language proficiency of the students, regardless of their degree of achievement.

Data Analysis

The study's goal was to find out how educational games affected sixth-graders at Islamabad Model School for Boys I-9/4 Islamabad's ability to acquire the English language at the elementary school level. The factual handling of the data results and information inspection, together with its quantifiable significance, are presented in this section. The study's conjectures were tested using the T-test, One Way ANOVA, mean, and Standard Deviation.

Table 3

Scope	Groups	N	Mean	Std.	T	Sig. value	Sig. level
	Experimental	30	4.693	1.824	2.361	0.000	Sig.at0.01
Words, Structure and Grammar	Control	30	3.185	1.949	2.361		
Total	60	7.878	3.773	2.361		0.000	Sig. at 0.01

‘’t’’ table values at (60) d f. at (0.05) sig. level the control group in the post-test results of the equals0.98‘’t’’ table values at (60) d f. at (0.01) experiment’’. sig. level equals1.29

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To mention the impact size of the Table 4.1 shown the ‘’t-test results in educational games strategy, the researcher differences between the experimental group and computed “Ƞ2 ” by using the following formula:

$$Ƞ\ 2 = \frac{t\ 2}{t\ 2 + df}$$

And the value of "d" using the following formula:

Table 4

Volume Effect			
Test	**Small**	**Medium**	**Large**
Ƞ2	0.02	0.05	0.12
D	0.1	0.6	0.7

‘Table 4 shown the references to find out the ‘’d’’ of the volume effect in the study’. level size effect of eta square and the value of the

Table (4.3)

Domain	T value	Ƞ 2	D	Effect Volume
Words And Structure	2.361	0.135	0.604	Large

Table 4.3 shown the significant ‘’t’’ value, eta square” Ƞ 2 "and ‘’d’’ for the total degree and each domain

Findings of the Study

On the basis of the findings of the investigation, the following results and conclusions have been observed: 1. There is a statistically significant difference in the level of English language competency among sixth graders as a result of the methodology for instructional games. The following was the nature of the inquiry that was being asked: Would it be possible to establish a statistically significant difference between the levels of achievement achieved by students who learn English using educational games (the experimental group) and those who study English through traditional means (the control group) at a significance level of ($\infty \leq 0.05$)? The following null hypothesis was tested by the investigator in order to provide a response: There was no statistically significant difference in the degrees of accomplishment between the students who learn English using educational games (the experimental group) and those who study English through traditional means (the control group). This was determined by doing a statistical analysis

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with a significance threshold of ($\infty < 0.05$). For the purpose of evaluating this concept, the findings of both the experimental group and the control group were averaged, and the standard deviation was computed. To determine the significance of the difference, the T-test was employed. Additionally, the values for "d" and "ɳ2" were calculated to determine the effect margin of the instructional game approach. The investigation's conclusions were limited to the "Educational games programme" test since all other variables, such as age, general achievement in the English language, and general accomplishment in the test, were pre-controlled.

The results showed that, for the entire test and absolute degree, the "t" test value is greater than the "t" table value. This suggested that there were differences in the experimental group's pupils' overall performance on the post-test across all language skills that were of factual significance. This result was consistent with the findings of almost all previous tests, including those conducted by Falloon (2016), Kangas (2017), Suh et al. (2017), Paraskeva et al. (2015), and Suh et al. (2017), which all revealed the positive benefits of educational games on students' performance and success. According to Liu and Chu (2016), their research revealed the effectiveness of educational gaming systems in enhancing learning outcomes. According to Turgut and Irgin (2018), their research revealed the effectiveness of educational game methods in improving students' proficiency in English language jargon. According to Warrens and Donglingers (2018), Rutherford (2016), Colby (2018), and Moberly (2018), educational games have a significant impact on the acquisition of learning abilities. According to Thomas and Austin (2015), educational games have a significant impact on the achievement of structural goals. Based on the "d" and "ɳ2 " values displayed in the tables, it was seen that the educational games system had a significant impact on the students' overall performance, which included listening, writing, and jargon and constructions. The effect size on comprehension capacity was moderate. It can be explained by the fact that reading comprehension is a complex skill that requires extensive and frequent practice. Furthermore, reading comprehension includes a wide range of subskills that have not yet been taught to younger kids.

Discussions

What kinds of gaming sessions their schedule and curriculum enable is one of the more important questions an educator should consider early on in a game-based learning initiative? The examined examples' curricular requirements and hardware accessibility influenced not only the game selection but also the scheduling and execution strategies for gaming sessions. The instructor

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in the sixth grade class tended to use shorter stand-alone sessions due to the students' frequent use of computers, the 45–60-minute classroom hour, and the curriculum's more stringent requirements and learning objectives. Under the stand-alone session arrangement, students worked in pairs or individually on tasks with predetermined beginning and ending points, making it simpler to gauge their progress. The advantage of treating every class period as a separate exercise was that it made it possible to modify the game assignments' design in accordance with how quickly the students picked up on the intricacies of the material being taught as well as how to play the games.

Conclusions

The conclusions that were drawn from the study's findings were as follows: 1. When it came to teaching English, the strategy of educational games won out over the traditional approach. 2. The variety of learning environments is altered by instructional games. 3. Students learn in a better atmosphere thanks to educational games, which shows in their improvement of the English language. 4. Educational games increased student correspondence, allowing for familiarity drills and reducing teacher authority over the class. 5. The educational landscape 6. Rather of providing direct instruction, mes encourage students to practise the English language on their own. 7. Educational games enhanced the beneficial learning through comparable gatherings and group rivalry. 8. The students played a variety of roles through instructional games, including researcher, observer, problem solver, and scholar. These employments helped them acquire and use the English language more readily and without difficulty in a variety of situations. The pace of an exercise is altered by the educational game style, which also keeps pupils motivated.

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