

**Development of Language Games in English for Enhancing
Linguistic Intelligence Among Secondary School Students**

Dissertation submitted to N.V. K. S. D. College of Education (Autonomous),

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in partial fulfilment of the requirements for the award of the degree of

MASTER OF EDUCATION

by

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I hereby declare that this dissertation entitled **Development of Language Games in English for Enhancing Linguistic Intelligence among Secondary School Students** has been originally carried out by me during the academic year 2023- 2025 under the guidance and supervision of Dr. V. S. Pavithra Kumar, Assistant Professor in Physical Science. N.V.K.S.D. College of Education, Attoor, Kanniyakumari District. This dissertation is not submitted on the basis for the award of any degree, diploma, associateship, fellowship to any other University or Institution.

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This is to certify that the dissertation entitled **Development of Language Games in English for Enhancing Linguistic Intelligence among Secondary School Students** submitted in partial fulfilment of the requirement of the degree of Master of Education is a record of research work done by ADHITI S. H during the academic year 2023-2025 under my guidance and supervision. This dissertation has not been submitted to any other university for the award of any other degree or diploma.

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With great pleasure and privilege, I present here with full satisfaction the dissertation entitled **Development of Language Games in English for Enhancing Linguistic Intelligence Among Secondary School Students** I immeasurably thank God for blessing me with good health and confidence to successfully complete this work

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CONTENTS

S. No	Content	Page No
	LIST OF TABLES	
	LIST OF FIGURES	
	LIST OF APPENDICES	
I	INTRODUCTION	1
II	REVIEW OF RELATED LITERATURE	13
III	METHODOLOGY	54
IV	ANALYSIS AND INTERPRETATION OF DATA	88
V	FINDINGS, IMPLICATIONS AND CONCLUSION	101
	REFERENCES	109
	APPENDICES	

LIST OF TABLES

Table No	Title	Page No
3.1	Language Games Package at a Glance (DOSE)	66
3.2	Selected items for Linguistic Intelligence Test	77
3.3	Reliability result for linguistic Intelligence Test	83
4.1	Summary of Mean, SD and t scores of Linguistic Intelligence pretest scores of class nine students of the experimental and control group.	91
4.2	Summary of Mean, SD and t scores of Linguistic Intelligence post test scores of class nine students of experimental and control groups.	93
4.3	Summary of Mean, SD, and t scores of Linguistic Intelligence test scores of class nine students in the experimental group.	95
4.4	Summary of mean, sum of squares, mean squares and F values of pre, post and adjusted post Linguistic Intelligence test scores in both experimental and control groups.	97
4.5	Summary of adjusted means, SD and t values adjusted post linguistic intelligence test scores of experimental and control groups.	99

LIST OF FIGURES

Table	Page
No	No
3.1	58
Diagrammatic representation of Nonequivalent Group Design	
3.2	60
Design of Experimental Study	
3.3	64
Phases of Language Game Procedure (DOSE)	
4.1	92
Comparison of Linguistic Intelligence score under Instructional Design Method and Traditional method at Pretest level for total sample	
4.2	94
Comparison of linguistic intelligence score under Instructional Design method and Traditional method at post test level for total sample	
4.3	96
Effectiveness of Instructional Design method in Linguistic Intelligence for total sample	
4.4	98
Unadjusted and adjusted mean scores of pre and post linguistic intelligence test of experimental and control groups	

CHAPTER I

INTRODUCTION

- ❖ NEED AND SIGNIFICANCE OF THE STUDY
- ❖ STATEMENT OF THE PROBLEM
- ❖ OPERATIONAL DEFINITION OF THE KEY TERMS
- ❖ OBJECTIVES OF THE STUDY
- ❖ HYPOTHESES FRAMED FOR THE STUDY
- ❖ METHODOLOGY IN BRIEF
- ❖ DELIMITATIONS OF THE STUDY
- ❖ ORGANIZATION OF THE REPORT

CHAPTER-I

INTRODUCTION

Education is the most significant and potent tool available to humans for reshaping and molding themselves into desired forms. Learning is any change in behaviour that an individual experiences as a result of his interactions with his surroundings. In addition to turning the human into a rational entity, education helps people grow and prepare them for survival and environmental adaptation, which is necessary for them to successfully navigate both their personal and societal lives. Education serves the dual purpose of preparing and qualifying people for employment in the economy and integrating them into society by instilling social values and morals.

Language fixes the knowledge of objects. Language is the expression of ideas through the combination of speech sounds and words. Sentences are formed by combining words, and ideas are formed by combining words to form thoughts. The fundamental means of communication is language. Around the world, people speak thousands or perhaps more languages. Furthermore, it is common knowledge that millions of people speak English worldwide. Since learning English can help one pursue and obtain additional professional prospects, it has been increasingly important in recent times. The development of fully functional humans, including the development of language skills, has long been the goal of education.

Interaction between people of different languages, nationalities and backgrounds is more common than ever in today's fast-paced and

technologically advanced society. The integration of modern technology into language instruction has emerged as the ideal supplement to a thorough education, enabling pupils to reach full competency in the English language. Learning a language is not only about learning grammar; it also means becoming fluent in that language. The term language fluency describes how learners become more competent communicators. Language classes supported by e-learning solutions are more effective, adaptable and enticing for students, especially for all those digital natives who are accustomed to using smartphones for most day-to-day work.

The majority of nations adopt English as their official language. Since English language has so many benefits, all students enrolled in school are expected to learn it. English plays a crucial function in a person's education. The reality that English is the language of knowledge cannot be disputed. The majority of well - known books are published in English. Since the majority of research articles are exclusively published in English, studying science and technology would be impossible without understanding the language (Kaur, 2024)

Being proficient in language is an indicator of linguistic intelligence. Being intelligent also entails being able to express oneself verbally with complete control. The ability to use language is possessed by those with linguistic intelligence. Linguistic intelligence not only means spoken aspect of the language but it involves written language. Ability to acquire in-depth knowledge of the language and its various facets is known as linguistic

intelligence. Successful language use and self-expression are indicators of linguistic intelligence. As language plays a crucial role in today's world, it is very important to enhance linguistic intelligence among students.

In recent years, there has been a transformation in the language education scene. The classroom, textbooks, and tape recorder or video player were the main teaching tools and contexts for language instruction just a few years ago, but the learners of today live in a different environment. Teachers are challenged to find innovative methods to incorporate technology into their lessons as it is increasingly recognised as an essential and required part of the teaching and learning process. This includes interactive whiteboards, mobile devices, computers and the internet.

Worldwide, the prevalence of computers and interactive whiteboards in classrooms is rising, as is the speed at which schools may link to the outside world and to one another. Technology is now portable for both educators and learners, with laptops, tablets and mobile phones being commonplace in many educational settings. An increasing number of educators and school officials acknowledge the potential of digital resources and the internet to enhance student motivation and engagement, accommodate learners with varying learning styles and elevate the standard of instruction (Zhao, 2005). These days, using technology in the classroom is a must for all students; it is no longer an option. Just as good schools are expected to make efficient use of the resources that technology makes accessible, teachers are also becoming tech literate.

English was traditionally taught through content. Essays, poetry and short tales written in English were chosen and put together into a textbook. In order to assess students' understanding, questions and exercises are given to them. There was nearly equal emphasis on literary meaning and language. But as time went on, it became clear that the main goal of studying English was to improve one's ability to communicate both orally and in writing. Over time, it was discovered that teaching solely language syllabus turns into a tedious and repetitive task. Students find it pointless. If pupils have a bad first experience in learning a second language, they may grow to detest it. Therefore, to ensure that language learning is as joyful as possible, care must be given while teaching a language. Various methods and techniques have been developed to make the learning more engaging. Teaching English using games is one of the most effective ways to keep students entertained as they study the language. Children learn from games and activities in the same way that they learn from real - world experiences. Playing games can be a stress-free, unconscious, incidental, pleasurable and engaging way to learn. Learning through games can provide a safe space free from the fear of making mistakes. One of the finest tools for self-improvement is language games. Using educational games helps to enhance the training process and help users attain motivated learning, game-based learning is an innovative approach to learning.

The study of linguistics examines the sounds and articulations of language. It addresses the process and location of articulation through the

range of sounds that are generated and understood in many different human languages. According to Howard Gardner, linguistic intelligence is the ability to perceive and comprehend various aspects of language. These skills improve pupils' ability to express themselves, communicate, and become more articulate.

1.1 NEED AND SIGNIFICANCE OF THE STUDY

Learning English is a multifaceted process that incorporates interactions with societal, linguistic, cognitive and psychological elements. A competent learner must navigate this difficult process, setting objectives, selecting suitable learning methods and managing their own learning. English speaking candidates have great opportunities in today's modern work markets. Despite having solid understanding in their field of expertise, candidates must demonstrate a reasonable degree of English ability. Those who communicate in English will undoubtedly carve out an area of expertise for themselves in the academic and professional worlds. High levels of English proficiency are needed for call centers, BPOs, telemarketing, online shopping, project implementation, medical transcription etc. In the academic field, English teachers are in high demand. English-speaking educators play a critical role in preparing students for interviews, group discussions, and other situations in addition to teaching English.

Various techniques have been used to increase the effectiveness of English language learning. Learning a language through language games can be an effective technique to enhance the learners' linguistic intelligence.

Play in the classroom is wonderful because it helps students become more independent and self-correct with less emotional strain. Learners can progress at their own speed along a well- defined course. Additionally, it creates the perfect settings for learning and promotes active learning.

There are many obstacles to learning English effectively in the current context of language instruction and learning. These difficulties result from both the excessive quantity of learning resources and the wide range of learning styles among students. Furthermore, there is frequently a big disconnect between the language that is learnt in the classroom and what is needed in real life, which emphasizes the necessity of a thorough and organized approach (Arokiaraj, 2024). Language learning methods often prioritize rote memorization over the development of critical thinking, creativity and problem solving skills.

Learning a language is a difficult endeavor that requires consistent work, particularly for beginners. Through the provision of meaningful circumstances, games motivate language learners to focus their efforts on language acquisition. Consequently, it is critical that educators incorporate games into their foreign language instruction curriculum rather than viewing them as amusing add-ons or time wasters. There are a variety of descriptions regarding the nature of games that have been put up by different researchers. Ajmeeri (2015), in his study about the effectiveness of language games in learning English says language games can be used to develop English language learning. Language games can be used to develop listening,

speaking, reading and writing abilities of students in English. Moreover, language games help students to develop interest towards the subject. Language games present a promising solution, but their potential is still under explored. This study aims to address this gap by creating and assessing language games that improve linguistic intelligence.

In light of the rapidly changing global landscape, effective communication skills are essential, making linguistic intelligence a vital asset. For language learners, teaching linguistic intelligence requires a thorough comprehension of words, phrases, and grammatical structures. In essence, linguistic intelligence is the intellect pertaining to language and communication. These abilities help students communicate, become more eloquent, and be more equipped to convey their emotions. People that possess this linguistic intelligence talent are able to express their opinions in a direct, concise, elegant, and sophisticated way.

1.2 STATEMENT OF THE PROBLEM

In the past, learning a language was primarily centered on mastering grammar, which is practiced through grammatical items and can be challenging for learners. However, it's now thought to be crucial to develop a language in all its forms. Language games significantly enhance linguistic intelligence by improving vocabulary, grammar, comprehension, and cognitive flexibility. They promote linguistic skills like pronunciation, language production, and error correction. Language games help learners to develop linguistic intelligence. Additionally, it can reduce distractions and

positively engage students. Games also boost motivation, engagement, and confidence, making language learning enjoyable. The primary purpose is to examine the impact of language games on language proficiency and linguistic intelligence components. It aims to identify to what extent language games improve linguistic intelligence among secondary school students. By achieving this objective, the study contributes to improving language education and linguistic intelligence among secondary school students. Hence the present study has been undertaken with a view of “Development of Language Games in English For Enhancing Linguistic Intelligence among Secondary School students”.

1.3 OPERATIONAL DEFINITION OF THE KEY TERMS

Development:

It refers to the preparation and testing of an instructional package based on language games.

Language games:

It refers to the interactive activities that focus on developing specific language skills, providing an engaging, effective and enjoyable learning environment that fosters voluntary participation and motivates both teachers and students to acquire targeted language skills.

Linguistic Intelligence:

It refers to the extent to which an individual can use language in both written and verbal forms. In the present study the scores obtained by

students in the linguistic intelligence test having the elements of language such as syntax, semantics, pragmatics and morphology.

Secondary School students:

It refers to the students who study in class nine in various government schools of Kanniyakumari district in Tamilnadu.

1.4 OBJECTIVES OF THE STUDY

1. To prepare and validate instructional design based on language games in English for class nine students.
2. To compare the mean pretest scores of Linguistic Intelligence in English of class nine students of experimental and control groups.
3. To compare the mean post test scores of Linguistic Intelligence in English of class nine students of experimental and control groups.
4. To test the effectiveness of instructional design based on language games in enhancing Linguistic Intelligence in English of class nine students of an experimental group
5. To find out the significant difference in the mean adjusted posttest scores of Linguistic Intelligence in English of class nine students of experimental and control groups when pretest is taken as a covariate.

1.5 HYPOTHESES FRAMED FOR THE STUDY

1. There exists a significant difference in the mean pretest scores of Linguistic Intelligence in English of class nine students in the experimental and control groups.

2. There exists a significant difference in the mean post test scores of Linguistic Intelligence in English of class nine students in the experimental and control groups.
3. There exists a significant difference in the mean pretest and post test scores of Linguistic Intelligence in English of class nine students in the experimental groups.
4. There exists a significant difference in the mean adjusted posttest scores of Linguistic Intelligence in English of class nine students in the experimental and control groups when pretest is taken as a covariate.

1.6 METHODOLOGY IN BRIEF

Method Used

Experimental method was adopted for conducting the study. Pretest posttest non- equivalent group design was used.

Population

The population of the study consists of class nine students who are studying in various schools of Kanniyakumari district in Tamil Nadu following the State Board syllabus during the academic year 2024 - 2025.

Sample

The present study was conducted on a sample of class nine students. The size of the sample is 119. Two intact groups will be selected in which the Experimental group consists of 63 samples and the Control group consists of 56 samples.

Sampling Technique

Simple random sampling was used in this study.

Tools and Techniques used

- Language games package for enhancing linguistic intelligence focusing on language skills, grammar, spelling.
- Linguistic intelligence test in English.

Variables

Independent Variable - Language Games

Dependent Variable - Linguistic Intelligence Test

Statistical Technique Employed

The present study the following statistical techniques are used.

- independent t test for large sample
- paired t test for small sample
- ANCOVA

1.7 DELIMITATIONS OF THE STUDY

1. The study is limited to the geographical area of Kanniyakumari district only.
2. The study is limited to nine standard students only.
3. The study is limited to selected content from nine standard.

1.8 ORGANIZATION OF THE REPORT

The present investigation of the study is reported under five chapters.

Chapter I deals with the introduction, need and significance of the study, statement of the problem, operational definition of the key terms, objectives of the study, hypothesis framed for the study and delimitation of the study.

Chapter II deals with the theoretical overview and review of literature.

Chapter III deals with the methodology of the study. The chapter consists of the test development and research design.

Chapter IV deals with the analysis and interpretation of the collected data.

Chapter V deals with the findings, conclusion, educational implications of the study and suggestions for the further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

- ❖ INTRODUCTION
- ❖ THEORETICAL OVERVIEW
- ❖ REVIEW OF RELATED STUDIES
- ❖ CRITICAL REVIEW

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

An essential aspect of an investigation is the review of literature that is an inclusive contemplative survey of previous writings referring to problems or issues. The term review means to organize the knowledge of the specific area of research to construct new knowledge and show that the proposed study would be a value addition to the respective field. In research methodology, the term literature refers to the knowledge of a particular area of investigation of any discipline which includes theoretical, practical and its research studies (Kaur, 2021).

Best John. W (2004) defines review of literature as

“ A summary of the writings of recognised authorities and of previous research provides evidence that the researcher is familiar with what is already known and what is still unknown and untested. Since effective research is based upon past knowledge, this step helps to eliminate the duplication of what has been done and provide useful hypotheses and helpful suggestions for significant investigation.”

Review of literature has a major role in shaping the research problem because it helps to understand the subject matter better and also helps in conceptualizing the research problem precisely and making it more relevant to that particular field. Analyzing past research records helps to eliminate the

risk of duplication. It also helps to get more information from the perception of other researchers about the same subject area.

Usefulness of Review of literature

The review of literature is highly important because the researcher has to synthesis the ideas which are available in the particular study. William Wiersma and Stephen G. Jurs (2009) has described the usefulness of review of related literature as,

- i. More specially limiting and identifying the research problem and possible hypotheses.
- ii. Informing the researcher of what has already been done in the area.
- iii. Providing possible research design and methodological procedures that may be used in research study.
- iv. Providing suggestions for possible modifications in research to avoid unanticipated difficulties.
- v. Identifying possible gaps in research.
- vi. Providing a backdrop for interpreting the results of the research study.

2.2 THEORETICAL OVERVIEW

Humans utilize language to engage, communicate, convey meaning and to share ideas with other people. Language serves as a tool for interpersonal communication. Language is a tool we use to communicate ideas and accomplish our goals. All our community needs a language to communicate. Only through language can a person improve their knowledge.

Nowadays, English is a universal language that is spoken by people all over the world.

Academic as well as conversational English are necessary for someone learning English as a second language. In many nations, English is taught as one of the subjects. Due to individual differences, learning a language is still seen as a difficult undertaking for those who try it. According to Crozier, “individual differences may lead to academic success or failure in the area of foreign or second language learning” (Salahzade and Lashkarian, 2015). Teaching a large number of students has helped them acquire both productive and receptive language skills in English. As the language is considered as an international language, which plays a significant role in the present era, it is crucial to acquire fluency in the language.

Technology integration into learning environments is becoming more and more essential to improve students’ motivation and engagement. Digital technologies have emerged as important areas of study and application for English language teachers in recent years. One of the best ways to learn the language is through language games. Language games are useful tools that let us design engaging activities for the proficiency of the language.

Games:

One of the essential learning exercises is playing the game. The games ought to be thought of as extracurricular activities. It is a great method to get students interested in learning, add fun and interaction to the

process. Games can improve language skills like vocabulary, grammar and pronunciation. Games can improve memory, critical thinking and problem-solving abilities. A teacher should take care to select a game that is acceptable for the class in terms of part. It can be modified to meet different learning goals and language proficiency levels participation style and language. The teacher shouldn't stop the game once it starts to correct students' language usage. Learning through games can offer a secure environment free from the anxiety of making mistakes.

Games are one of the best tools to improve themselves and an engaging activity. It can be played alone or with other people which encourages cooperation. A teacher should consider certain guidelines for using games in a classroom. The games must have a clear learning objective and purpose. Students should be divided into teams; the teacher must explain all necessary procedures and rules slowly and clearly to the students; the teacher must be consistent; the game must be prepared.

Language Games:

Traditional teaching and learning processes like chalk and talk methods have been outdated. Teachers can use many task-based activities to improve participation among the students. One of the preferred teaching strategies is to use language games as an aid in order to improve various language skills. Language games are now being used in classes on more sophisticated and modern platforms. Classes become lively and fascinating through games. They support kids in developing their language skills and

vocabulary. Games also improve agility, memory and inventiveness. Games are more methodical, structure and rule-bound. There is a specific task or objective that needs to be completed. Since games are played informally, kids converse without realizing it.

Today's language classes are not the same. In a traditional classroom, teachers are key players and students are only observers. The sole goal of teaching is to impart knowledge, and it is assumed that students will retain it. They mimic what they learn from teachers by memory. These days, a teacher's job description has evolved from educator to facilitator and now it includes setting up a conducive learning atmosphere in the classroom. Children pick up knowledge on their own, according to their understanding and speed. They actively participate in the process of learning. It is necessary to use various methodologies in order to maintain the interest of the students and to keep them motivated.

Popular game categories for learning languages include:

- ❖ Online multiplayer games (RPGs)
- ❖ Adventure games
- ❖ Puzzle games
- ❖ Simulation games

A variety of platforms are available for playing games, such as:

- ❖ Computers
- ❖ Consoles
- ❖ Mobile devices

- ❖ Virtual reality (VR) headsets
- ❖ Augmented reality (AR) devices.

Games can be played by single individuals. Groups or pairs can play games together. In single -player games, each player must finish the objective on their own. Typically, the evaluation is based on how quickly the task is accomplished. Students work in pairs rather than alone when using the same technique, although there are some differences. The job is given to the entire group when playing group games. Teams of two or more are pitted against one another in team games. Language games can be divided into groups based on the language competence they emphasise. There are games for speaking, listening, reading and writing. Games with particular objectives, such as vocabulary and grammar games, can be created.

Raheem et al., (2020) conducted a study on The Role of Language Games in Developing Linguistic Abilities. Based on their age-appropriate interest in games, the study's sample of elementary school students revealed that they learn naturally or how they choose to study. The findings demonstrated how much the children enjoy it, since several of them attempted to practice it on most days and by themselves. Most children also get better at speaking, writing, reading and listening. Additionally, students improve their ability to spell words correctly and pronounce words they come across in daily life.

A study on The Use of Language Games in Enhancing Student's Speaking Skills was carried out by Kaur and Aziz in 2020. The study's

findings indicated that language games are an effective teaching aid. According to the study, instructional games benefit teachers and educators. It adds a playful element and motivates students to communicate in authentic situations.

Theories Behind Game Based Learning:

Play is regarded as one of the best activities for a child's development since it gives participants the chance to create meaning and expand their horizons from the known and actual to the imagined and possible (Vygotsky, 1978). Studies have generally shown that players of video games develop significantly and sophisticatedly when they reason, discuss and create solutions to game-related tasks, activities and circumstances. (Steinkuehler & Duncan, 2008).

The convergence of learning theories and game mechanics forms the basis of games pedagogy. While game mechanics offer a framework for creating rewarding and interesting experiences, lecturing theories offer a framework for comprehending how individuals learn. The creation of educational games can be influenced by a wide range of learning theories. For instance, behaviorist theories place a strong emphasis on the value of feedback and reinforcement in the learning process, whereas cognitive theories are concrete on the way in which students organise and create knowledge. Conversely, constructivist theories place a strong focus on the value of problem-solving and active learning. A foundation for creating, gratifying and captivating gaming experience is provided by game

mechanics. To keep players interested and motivated, they offer rewards, feedback, challenges and exploration.

A vast array of learning theories can impact the development of educational games. “ Learning is a persisting change in human performance or performance potential which must come about as a result of the learner’s experience and interaction with the world” (Driscoll, 2000). Many of the characteristics that are frequently linked to behaviourism, cognitivism, and constructivism are included in this definition, including the idea that learning is a permanently altered condition brought about by experiences and interactions with content or other individuals.

Behaviourist Theories:

According to behaviorism, learning is essentially unknown, meaning that we are unable to comprehend what occurs inside of an individual. According to Gredler (2005), behaviorism is made up of multiple hypotheses with three learning - related presumptions:

1. Understanding internal actions is not as crucial as observable behaviour.
2. It is best to concentrate behaviour on basic components, such as certain cues and reactions.
3. Changing one’s behaviour is the goal of learning.

According to Miltenberger (2001), Behaviour is often defined as what people say and do. The focus of behaviourism theory is on the examination of overt behaviours that are measurable and observable. (Good and

Brophy,1990). It completely rejects the idea that mental processes take place and sees the mind as a “black box” in which the mind’s response to stimuli can be measured objectively. According to behaviourists, every theory ought to include observable processes like actions. According to them, since inner states such as motivations or mental states cannot be examined objectively, only overt behaviour should be investigated and documented.

According to Good and Brophy (1990) The operant conditioning processes that Skinner developed are his primary contributions to behaviorism. Skinnerian ideas like ‘reward’, ‘negative reinforcement’, ‘extinction’, or ‘non-reinforcement’, and ‘punishment’ are all part of operant conditioning systems. Numerous significant contributions to the growth of behaviorism have been made by Skinner.

The way that rewards influence behaviour is a key component of behaviorism’s learning theory. By employing in-game incentives like badges, points or other awards to incentivize players to interact with the information, behaviorism can be integrated into game-based learning. In addition to giving students the information they need, this also gives them more specific goals, which improves the frequency and quality of their involvement and in certain cases, cuts down on training time.

Cognitive Theories:

A model of computer information processing is frequently used by cognitivism. It is believed that learning is an input- managed short-term memory process that is coded for long-term recall. According to cognitive

theories, learning is the mechanism by which these symbolic representations are committed to memory. Knowledge is understood as symbolic mental structures in the learner's mind.

Cognitivism focuses on the role that mental processes like memory, attention, and problem-solving play during the learning process. A wonderful method to incorporate cognitivism into games is to have players solve puzzles, exercise critical thought, and make judgements based on the information presented to them.

Constructivist Theories:

Constructivism is the philosophy that holds that through experiencing things and thinking back on them, people create their own knowledge and understanding of the universe. According to Constructivism, as students try to make sense of what they've experienced, they build knowledge (Driscoll, 2000). Constructivist concepts recognize the complexity and messiness of learning in the real world. Learners will be better prepared for lifelong learning in the classroom that mimics the "fuzziness" of this type of learning.

This learning paradigm emphasizes the active role that students take in developing their understanding of the world around them. Constructivism can be successfully included through open-ended games and exploration, which allow students to experiment with different solutions and form their own knowledge of the material.

Social Learning Theory:

Researchers in the fields of communication, sociology, psychology, sociolinguistics and anthropology have found that social interaction around shared labor is an effective way to promote learning. Their studies comprise a family of social learning theories. These are referred to by a number of names, including communities of practice, sociocultural historical theory, distributed cognition, cognitive apprenticeship, contextual learning, and social constructivism. The first four highlight the importance of scaffolding or experiencing learning within the context of its application.

Development, or learning-in-process, occurs when a student encounters difficult tasks that they can complete with assistance but are still unable to do on their own due to insufficient knowledge or competence (Vygotsky, 1978).

Connectivism Theories:

Connectionism, a theory of learning, emphasizes the potential benefits of networks and technology for learning. Through social media integration, online communities and multiplayer games that allow students to communicate and collaborate on their studies, this can be included into game-based learning. According to Connectivism, technology plays a significant role in our educational process. As a matter of fact, this theory advances the notion that learning can occur through digital platforms such as blogs, videos, social media and forums.

The realization that choices are predicted on quickly shifting foundations is the driving force behind connectivism. There is always more data being collected. The Capacity to distinguish between relevant and irrelevant information is essential. It's also crucial to be able to spot instances in which decisions taken yesterday are affected by current knowledge.

Principles of Connectivism:

George Siemens outlined his eight guiding principles to create Connectivism Learning Theory:

- The foundation of knowledge and learning is diversity of opinion.
- Linking specialized nodes or knowledge sources is the process of learning.
- Non- human devices might be capable of learning.
- The ability to learn more is more important than what is understood at this time.
- To support ongoing learning, connections must be nurtured and maintained.
- One essential skill is the capacity to recognize connections between thoughts, ideas and fields.
- The goal of all connectivist learning activities is currency or current accurate knowledge.
- Making decisions is a learning experience in and of itself. Selecting what to study and interpreting information that is received is viewed

through a changing reality. Even though the response is correct now, it might not be tomorrow since decisions are influenced by changes in the information environment.

Connectivism starts within a person using digital technology to get a problem solved. This can involve doing things like texting a friend, looking up a subject on Google or looking through social media for relevant stuff. According to the Connectivism Learning Theory, using digital technology to solve problems leads to a deeper comprehension of the subject matter.

The Zone of Proximal Development (ZPD):

According to Vygotsky (1978), each person possesses a particular level of performance. The individual must be advanced to the next level or what is known as development. The teacher is in charge of this assignment. The teacher helps the students to go to the next level of performance, improving it in the process. The Zone of Proximal Development is the distance that separates the current performance level from the next one. Vygotsky has defined it in the following words:

“ The distance between the actual development level as determined by individual problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers”. Games involve active peer interactions. Playing games with friends can also help with language proficiency. Vygotsky correctly identified the connection between

sociocultural and cognitive elements. The ZPD is seen by Vygotsky as a suitable place to begin learning. It builds on the child's existing knowledge while taking into account what they already know. Scaffolding is the support system used to get to the next level.

While all four learning theories have had a significant impact on educational practice, behaviorism theory has stood out as having had the greatest impact when compared to the other learning theories. This is due to the fact that the majority of the basic ideas supporting the other theories have some connections to behavioristic ideas.

Both Behaviourism and Cognitivism see learning as the process of internalizing knowledge, and knowledge as existing outside of the learner. According to Constructivism, students are not empty shells that will hold knowledge. Rather, students are making a conscious effort to interpret information. Students frequently choose and pursue their own courses.

Benefits of Language Games:

The popularity of using game-based learning in the classroom to enhance student learning is rising. The majority of educators employ digital games for learning. Games provide an interactive and engaging learning environment, allowing students to actively participate in the learning process and remember information more successfully. The increasing popularity of digital technology has led to increased accessibility to instructional games, making them a popular option for educational establishments. By applying these game concepts to the development of educational games, digital

language games can produce entertaining and instructional experiences that will support learners in staying motivated and engaged as they pursue their learning goals. Since games are inherently exciting and engaging, they are an excellent tool for grasping and holding children attention.

It has been discovered that virtual settings with predefined goals are particularly beneficial for language learning. More advanced and contemporary platforms are being employed in classrooms these days to deploy language games. Fascinating games may transform classrooms into more vibrant, interactive spaces. It can be modified to meet different learning objectives and degrees of language competency. Playing language games is one of the best methods to expand vocabulary. Language competency-improving games are useful tools that let us design engaging exercises. Grammar, pronunciation and vocabulary are examples of language skill in games.

The Concept of Intelligence:

A lot of individuals are aware of the term “intelligence”, intelligence is the ability or capability of people to do certain aspects (Lestari, 2022). Gardner (2011) defines intelligence as the biological and psychological capacity for processing knowledge that can be engaged in a cultural context to solve issues or produce products that are beneficial. Kakkar (1993) defined intelligence as independent factors and these are equally important. From those two theories it can be inferred that intelligence is an important factor for each person.

Gardner (1999) asserts that intelligence is much more than IQ, arguing that intelligence is not the same as a high IQ in the absence of output. He defines intelligence as the ability to process information as the ability to process information on a bio-psychological level.

It can be used in a cultural context to solve issues or produce goods that have cultural worth. According to Kaur, S (2004), it is the whole mental capacity to reason, solve problems, think abstractly, pick up and comprehend new information, and draw lessons from the past.

Among the various definitions provided above, Howard Gardner's is the most widely accepted. Nine categories of intelligence have been recognised by Gardner:

- Linguistic Intelligence
- Logical Intelligence
- Mathematical Intelligence
- Spatial Intelligence
- Bodily-kinesthetic Intelligence
- Musical Intelligence
- Naturalist Intelligence
- Existential Intelligence
- Interpersonal Intelligence
- Intrapersonal Intelligence

Factors affecting Intelligence:

There are few things that can influence intelligent people with the mental capacity to solve difficulties and produce a product. According to Armstrong (2009), there are three key variables that influence how intelligence develops. They are as follows:

1. Biological endowment, encompassing genetic or inherited components as well as brain trauma sustained prior, to during and following birth.
2. The individual's life history includes their encounters with parents, educators, acquaintances, peers and others who either stimulate their intelligence, prevent it from growing, or deliberately suppress it.
3. Cultural and historical background, which encompasses the period and location of birth and upbringing as well as the kind and stage of historical or cultural advances across several fields.

According to Gardner's theory, humans are made up of nine different forms of intelligence that combine to make them distinctive individuals (Ahmadian & Hosseini, 2012). According to Armstrong (2009), it's crucial to keep in mind the multiple intelligences theory's four main arguments. First of all, each person possesses all eight intelligences to a varying degree. Furthermore, if they receive the right impulse, improvement and commandment, they can enhance each of their intelligence. Hoerr (2000) claims that "the theory of multiple intelligence brings a pragmatic approach to how to define intelligence and allows the teachers to use their students'

strengths to help them learn”. To summarize, based on the assertions made by certain specialists, it can be inferred that many intelligence contribute to the field of education, aiding in the development of intelligence in people like teachers and pupils.

Linguistic Intelligence:

The degree to which a language learner acquires a second or foreign language depends on their unique intellect. It follows that intellect is a significant factor in how well people learn languages. Over time, intelligence has grown and is now one of the key components in learning a foreign language. It used to be solely defined as a single brain characteristic, and IQ tests that assessed verbal and logical intelligence were used to gauge it. This outdated, IQ-test-based definition of intelligence is quite constrained. (Gardner 2011; Hoerr 2000). Rather, linguistic intelligence is one of nine categories that makeup Gardner’s Multiple Intelligence Theory.

Linguistic Intelligence is described as a learner’s affinity for the English language that may be effectively encompassed, demonstrated, or recorded in several language elements, such as morphology, syntax, pragmatics, semantics and phonology. Linguistic intelligence is the ability of a person to talk and write for themselves, as well as to understand spoken and written language. Linguistic intelligence is practically speaking, the degree to which a person can use language to accomplish objectives. Linguists with linguistic intelligence are able to communicate clearly and smoothly in language, which helps them expand their knowledge. They have

strong memorisation skills and can understand both written and spoken language with ease.

Gardner (Ezhisai, V. J, 2003) defined linguistic intelligence as the capacity to acquire new languages, as well as the sensitivity to both spoken and written language and the ability to use language to achieve goals. Gardner also described linguistic intelligence as:

- A thorough comprehension of language and awareness of both its literal and figurative connotations.
- Exceptionally strong written and verbal communication abilities.
- Understanding grammar norms and knowing when to break them.
- Sensitivity to the rhythmic and melodic aspects of language.
- Understanding of the various purposes of language, including informational, enjoyable and persuasive (Salahzade et al., 2015).

From the above definitions by some experts, it can be said that linguistic intelligence encompasses more than just the capacity to speak and understand a language fluently. It demands a thorough comprehension of language and sensitivity to both the literal and figurative meanings of words. In addition, it requires highly developed oral and written communication skills, accurate grammatical understanding and a desire to master many languages.

Signs of individuals with High Linguistic Intelligence:

Pupils with linguistic intelligence exhibit exceptional auditory skills and typically enjoy word games, writing and reading. They also love using

digital platforms for word processing and have high recall skills for names, dates and locations. They might be able to communicate phonetically, clearly and with a sophisticated vocabulary (Solehah, 2017).

Laughlin in 1999 (Salahzade et al., 2015) stated an individual with high linguistic intelligence typically possesses the following traits:

- Pays attention to spoken words and reacts to their sound, rhythm, colour and diversity.
- Acquires knowledge by discussion, writing, reading and listening.
- Effectively listens, understands, summarizes, interprets and retains the information that has been shared.
- Effectively reads, talks, understands, explains what they have read and retains the information.
- Demonstrates the capacity to learn new languages and communicates, discusses, explains and persuades through speaking, writing,listening and reading.

Games are a great way to get and keep student's attention since they are naturally exciting and engaging. Instant feedback and prizes are another feature of digital learning- based games that helps keep students engaged and on task while they work toward their learning objectives. Games are versatile and adaptive for classroom learning because they are easily customized to fit a broad range of learning objectives and topic areas.

The discipline of gaming pedagogy is expanding quickly and holds great potential for the future of education. Through the utilization of game

characteristics like interactivity, immersion and feedback, educators can craft captivating educational programs that facilitate students' acquisition of new abilities, perspectives and knowledge in an enjoyable manner.

Game-based learning platforms and technologies are becoming more and more popular, thus it's obvious that gaming will always be a big part of education. A potential educational strategy to engage students and improve their knowledge and abilities is game-based learning. These gaming mechanics and technological tools can help students to improve their linguistic intelligence by helping them gain transferable abilities like critical thinking, pattern detection and communication- all of which are vital in today's technologically sophisticated world.

Digital Games can enhance Linguistic intelligence in several ways:

- **Enhanced vocabulary:** Playing games exposes players to a large number of terms, their definitions, and applications which results in a notable increase in vocabulary.
- **Improved reading comprehension:** By requiring players to read and absorb material, digital language games help players become more proficient at decoding complicated phrases and storylines.
- **Improved syntax and grammar:** By providing players with an interactive and entertaining learning experience, digital language games aid in the comprehension and application of language structures.

- **Improved critical thinking:** By requiring players to solve linguistically based puzzles, digital language games help players develop their critical thinking and problem solving abilities.
- **Improved communication skills:** Digital language games encourage players to interact and converse with NPSCs (Non- player characters), which promotes good communication abilities.
- **Improved language processing:** Word games challenge players to identify word associations and patterns, hence improving language processing abilities.
- **Enhanced linguistic adaptation and flexibility:** By exposing players to the languages and its linguistic structures, digital games enhance linguistic flexibility.

Students can boost their linguistic intelligence by playing digital language games, which help them acquire a variety of linguistic skills from fundamental grammar and vocabulary to advanced critical thinking and communication abilities.

Playing language games is an enjoyable and stimulating approach to raise linguistic intelligence, which is necessary for clear communication and efficient problem solving. Language games are flexible instruments for language development because they can be made to fit a diverse group, language skill levels and learning goals. Playing digital language games can help the students to develop their vocabulary, syntax, and comprehension skills as well as their analytical and critical thinking capabilities.

Additionally, playing language games can promote creativity, teamwork and cross-cultural understanding, equipping players for success in a world that is becoming more and more interconnected. Digital language games have a huge potential to get increasingly more dynamic and immersive as technology develops, creating new avenues for the development of linguistic intelligence.

Overall, the development of digital language games is a viable strategy for raising linguistic intelligence with advantages extending beyond language proficiency to include improved cognitive and social skills.

2.3 REVIEW OF RELATED STUDIES

The investigator collected studies related to linguistic intelligence and language games. The related studies reviewed by the investigator are classified under the following two categories.

1. Studies related to Linguistic Intelligence
2. Studies related to Language Games

1. STUDIES RELATED TO LINGUISTIC INTELLIGENCE

The investigator collected 20 studies related to linguistic intelligence for the present study. The studies reviewed are given below

Siregar et al., (2025) studied “*Analysis of Linguistic Intelligence in Students’ Audiovisual-Based Story Content Understanding of Class VIII*”.

The study investigated the necessity to train linguistic intelligence, to understand the contents of the story. From the results of observations of

linguistic intelligence of class VIII students of SMP Negeri 2 Pematangsiantar, it is understood that each student's understanding level of the story differs from each other. And the study suggests that the use of interesting media can increase students' understanding of the story or content and also can increase the interest in listening, reading, speaking and writing a story even with a long plot.

Nafisa et al., (2024) investigated “*Exploring Verbal Linguistic Intelligence, Writing Self-Efficacy and Writing Skills Among Undergraduate Students*”. This study examined the relationship between verbal linguistic intelligence, self-efficacy and writing skills. This research adopted correlation quantitative design for the second semester of the English department in Unissula. The results of this study showed that Verbal linguistic intelligence has a significant relationship to writing skills and self-efficacy can be seen from the direct influence and indirect influence. These findings underscore that linguistic intelligence is a key factor in improving writing skills, while self-efficacy may have limited role.

Pasaribu et al., (2024) investigated “*Exploring Early Childhood Linguistic Intelligence through English Language Learning Methods*”. This study investigated the effectiveness of interactive learning methods; playing, singing, and storytelling in enhancing linguistic intelligence among early childhood learners in English language settings. The study adopted a

qualitative case study approach, data were collected through classroom observations, semi-structured interviews with teachers and parents, and field notes. The findings reveal that interactive methods significantly improve children's engagement, vocabulary acquisition, and ability to construct simple sentences. Activities such as singing and storytelling not only boost verbal responses but also build children's confidence in using English both in and outside the classroom. Parents observed enhanced communication skills and self-confidence at home. Additionally, these methods contributed to cognitive development, fostering critical thinking and creativity. The study concludes that interactive English learning activities are instrumental in fostering linguistic intelligence in early childhood while providing a strong foundation for future academic and communication skills. Recommendations for integrating these methods into preschool curricula are provided, highlighting their potential for global adaptation in early language education.

Zhran et al., (2024) investigated “*Verbal-Linguistic Intelligence Strategies Used by Gifted Students*”. The paper discussed the Verbal-linguistic Intelligence Strategies Used by Gifted Students, Verbal-Linguistic Intelligence are important for students to have at an early ages, the paper used analytical approach regarding to reviewing literature studies, the literature reviews refers to the gifted students used a number of Strategies such as reading books and journals, discussions, podcasting, Storytelling,

Crossword puzzles, so the teacher should develop these Strategies for the normal and disabilities students helping them to raise their academic achievement. The paper recommends that teachers teach students to use verbal-linguistic intelligence strategies like reading books and journals, live discussions with themselves, podcasting, Storytelling, Crossword puzzles.

Al-Zoubi et al., (2024) examined “*Linguistic Intelligence of Academically Gifted University Students*”. This study was conducted to explore the level of linguistic intelligence among academically gifted students at Ajloun National University in Jordan. The study sample included 29 students (14 males and 15 females) from the Department of English Language and Literature, who had a cumulative average of more than 84% and were rated as excellent. Data was collected from the Department of Admission and Registration during the first semester of the academic year 2023-2024. The students were asked to complete a linguistic intelligence questionnaire consisting of 26 statements. The findings revealed that the students in the Department of English Language and Literature possess a high level of linguistic intelligence. Moreover, the study identified statistically significant differences in the level of linguistic intelligence between gifted male and female students, with female students showing a higher level of linguistic intelligence. Furthermore, there were significant variations in the responses of academically gifted students based on their academic level, with students

in the 3-4-year academic level demonstrating a higher level of linguistic intelligence.

Thomas et al., (2024) investigated “ *Influence of Howard Gardner’s Linguistic Intelligence on Effective Communication*”. This study intended to know if any relation or influence between verbal and linguistic intelligence and effective communication from Multiple Intelligence theory and Managerial Competency concept respectively. The analysis focused among IT professionals to find the relation between this through the theoretical framework. Two hundred samples were collected and analysed which realized that there is significant influence between verbal and linguistic intelligence and effective communication of information technology professionals. The study found that multiple intelligence remains stable at the mature stage of a person. Adopting these methodologies will help the recruitment and training process more efficiently and sharper to the corporate organisations.

Lestari et al., (2023) investigated “*The Influence of Intellectual Intelligence on the Learning Outcomes of Prospective Physics Teachers*”. This research aims to (1) describe the intellectual intelligence of prospective Physics education teachers for classes A and C. (2) describe the Physics learning outcomes and describe the Physics learning outcomes of prospective Physics education teachers, and (3) determine the relationship between intellectual

intelligence and Physics learning outcomes . By knowing the level of readiness of prospective Physics teacher educators. The method used was a survey with the type of research being quasi-experimental. Student readiness for prospective Physics education teachers was measured using a student readiness questionnaire. This questionnaire has 10 statements with 4 choices. This research involved Physics education class A and Physics education class C. The result showed that the linguistic intelligence influenced the learning outcomes of prospective Physics teachers.

Hayder et al., (2023) studied “ *The Effect of Linguistic Intelligence- Based Activities on Iraqi EFL Learners’ Speaking and Reading Abilities: A Case Study of Diwanniya*”. The major concern of the study was to determine the degree of correlation among the Iraqi EFL learners’ speaking and reading skills, performance, and linguistic intelligence-based activities. This study adopted quasi-experimental research design. The population selected for this experimental study was the students of high school in Baghdad. Results of the study indicated that linguistic intelligence-based activities enhanced EFL learners’ speaking and reading abilities.

Saleh et al., (2023) investigated “*The Students’ Linguistic Intelligence Profile on Speaking Skill at SMA Negeri 21 Makassar*”. This study aims to reveal the students’ linguistic intelligence profile on speaking skills. This research employed a qualitative research design. This study involved the

students of class XI grade SMA Negeri 21 Makassar, consisting of 50 students. The findings indicated that a significant number of students were dominating in the aspect of being able to speak the target language with correct intonation and pronunciation but still required corrections and guidance since the students were not too fluent in performing speech.

Jarnudi et al., (2023) studied *“The Influence of Language Attitude and Linguistic Intelligence on Creative Thinking”*. The research analysed and described the influence of language attitudes and linguistic intelligence on creative thinking. This research was carried out at MAN 1 Serang City, Banten, Indonesia with a sample of 152 students of class XI spread across Science, Social Studies and Religious Departments. The research instruments used in this research were questionnaires and tests. This research used correlation research using a quantitative approach and data analysis technique used in this research was regression. Based on the results of the data analysis, it can be concluded that there was an influence of language attitudes and linguistic intelligence in creative thinking.

Lestari et al., (2022) examined *“The Correlation Between Linguistic Intelligence and Students Ability in Writing Descriptive text”*. This study adopted quantitative research at a Vocational High School in Central Java, Indonesia. The data was collected through a questionnaire instrument and a descriptive text writing test of 80 samples from 394 populations. The data

analysis technique employed product moment and descriptive analysis using SPSS. Based on the statistical analysis, this study concluded that there was a correlation between students' linguistic intelligence and the ability of writing descriptive text.

Gunawan et al., (2022) examined “ *Improving Language Skills Through Linguistic Intelligence Learning Design*”. This research aimed to determine the difference in students' language skills level before and after verbal linguistic intelligence-based learning design. This research was conducted in an elementary school in Garut Regency, Indonesia, using a pre-experimental design with a one-group pretest-posttest design. The participants were 22 sixth-grade elementary school students. The study proved that verbal-linguistic intelligence-based learning design can improve each student's language skills. The findings can be an insight for future researchers conducting research on learning design based on verbal-linguistic intelligence or language skills.

Setyaningsih et al., (2022) studied “ *Verbal-Linguistic Intelligence towards Student's Speaking English Skills Using Digital Media (Audio Visual) in the Classroom*”. This study aims to determine whether there is a relationship between students' verbal-linguistic intelligence in their ability to speak English using digital media (audio visual) in the classroom. The systematic literature review (SLR) for the methodology of the study. This study finds

that students' verbal-linguistic intelligence is an internal factor that has to be supported by the other internal factors and also some external factors to determine the mastery of speaking skills.

Rahmadina et al., (2021) investigated “*The Contribution of Students’ Linguistic Intelligence towards Reading Comprehension*”. This study aimed to find out the contribution of students’ linguistic intelligence towards reading comprehension. This study was document analysis and the data were analyzed descriptively. As a result of this study, it was found that the students’ linguistic intelligence gave significant contribution towards reading comprehension. It also showed that the students with well-developed linguistic intelligence showed interest in reading activity that reflected their reading comprehension.

Ulum et al., (2021) examined “*Improving Linguistic Intelligence through Graphic Introduction with Flashcard Media for early Childhood*”. This study aimed to explain the increase of linguistic intelligence by introducing graphemes with flashcard media for early childhood. This study's participants were 18 students divided into two groups: nine children in the experimental group and nine other children in the control group. The study was conducted in a private kindergarten located in East Java, Indonesia. Data analysis results showed that before being treated using flashcard media, the experimental group, and the control group did not significantly differ in

linguistic intelligence scores. So, it can be concluded that the control group that was not given treatment through flashcard media did not experience significant differences in scores. However, the experimental group with the treatment using flashcard media showed an increase in linguistic intelligence.

Handayani et al., (2021) investigated “*The Influence of Verbal- Linguistic Intelligence on Students Learning Outcomes in English at SMA Negeri 1 Sidrap*”. This study aimed to determine verbal linguistic intelligence, to determine the results of learning English especially on students’ speaking, and to find out the influence of verbal linguistic intelligence on learning outcomes in English students of class X IPA 1 of SMAN 1 Sidrap. This research adopted quantitative research and used pre-experimental design research. The population in this study was all students of class X SMAN 1 Sidrap, amounting 182 people, while the study sample was the entire population, namely students of class XIPA 1 SMAN 1 Sidrap, amounting 32 people. Based on the results of descriptive statistical analysis, there is a positive influence between verbal linguistic intelligence on learning outcomes of students of class X Science 1 of SMAN 1 Sidrap.

Hasanudin et al., (2020) conducted a study on “*Verbal Linguistic Intelligence of the First-Year Students of Indonesian Education Program: A Case in Reading Subject*”. This study aimed to describe seven indicators of students’ verbal linguistic intelligence in reading subjects. It used a

qualitative research method. The subjects of this study were 30 students consisting of 9 male and 21 female students. They took the reading subject in the second semester of the first year. They were given a test of verbal-linguistic intelligence. Seven students were selected to be interviewed because they have verbal-linguistic intelligence and good communication. Furthermore, the data were analyzed using the content analysis method which consisted of three steps, they were data reduction, data presentation, and conclusion drawing/verification. The results of the study showed that there were seven indicators of verbal-linguistic intelligence of students in reading subject, first, having excellent initial knowledge in mentioning words, second, enjoying wordplay with Scrabble, third, entertaining themselves and other students by playing tongue twisters, fourth, explaining the meaning of the words written and discussed, fifth, having difficulties in mathematics lesson, sixth, their conversation refers to something they have read and heard, and the last, having the ability to write poetry based on personal experience.

Djarmiko et al., (2020) investigated “*Linguistic Verbal Intelligence in Welding Practice Lectures*”. This study aimed to determine student linguistic intelligence, the level of student linguistic intelligence, and measure the relationship between linguistic intelligence and learning outcomes of welding practice lectures in the Undergraduate Program of Mechanical Engineering Education, Faculty of Engineering, Yogyakarta

State University. The method used was a survey. The research was carried out in the Undergraduate Program of Mechanical Engineering Education, Faculty of Engineering, Yogyakarta State University. The research variables are students' linguistic intelligence (independent) and the learning outcomes of welding practice lectures (dependent). The results showed that the students' verbal-linguistic intelligence was at an average value of 72.01%. 7.79% or as many as 6 students made verbal-linguistic intelligence the highest score compared to other intelligence. The significance value (Sig.) Is 0.450 and greater than 0.05, so it can be concluded that H_a is rejected, and H_0 is accepted, that is, there is no significant influence between the verbal-linguistic intelligence of students (X) on student learning outcomes of welding practice (Y). The value of R Square is 0.009, which means that the effect of verbal-linguistic intelligence on students (X) on the learning outcomes of students in the Undergraduate Program of Mechanical Engineering Education, Faculty of Engineering, Yogyakarta State University (Y) is only 0.9% while 99.1% is influenced by other variables.

Erlina et al., (2019) investigated “*Linguistic Intelligence of Undergraduate EFL Learners in Higher Education: A Case Study*”. The study employed qualitative research with a case study approach to explore and describe the linguistic intelligence of undergraduate EFL Learners of one state Islamic university in Palembang, Indonesia. The data were collected through observation of everyday activities in the classroom, survey and interview.

The participants of this study involved undergraduate EFL Learners. The results showed that there was a small number of the learners who used the language effectively to persuade others (rhetoric), who remembered the written and spoken information easily (mnemonic), who were able to deliver information orally and written (explanation), and who reflected language to talk about language itself (metalinguistic). The results of this study was expected to be beneficial for the students, the managers and lecturers of the English education study program in Indonesia to have a deeper understanding about the concept of linguistic intelligence as it is one of factors that can influence the success in language learning.

Ramadan (2017) conducted a study “ *Internet Based Linguistic Intelligence Activities For Enhancing EFL Primary School Pupils’ Writing Skills*”. The objective of the study is to enhance EFL primary school pupil’s writing skills through using internet based linguistic intelligence activities. The quasi-experimental design was adopted. The participants of the study were 60 pupils selected from 6th grade primary stage pupils at Mansoura College International Language Schools. Results of the study revealed that the experimental group pupils' ELF writing skills were significantly enhanced. It was recommended that linguistic intelligence activities should be used in EFL teaching to enhance writing skills and other language skills.

2. STUDIES RELATED TO LANGUAGE GAMES

The investigator collected 10 studies related to language games for the present study. The studies reviewed are given below

Chowdhury et al., (2024) conducted a study on “ *Digital Game-based Language Learning for Vocabulary Development*”. The objective of the study is to see the benefits of digital game-based language learning and its potential to create engaging vocabulary learning experiences. This study examined elementary English language learners’ vocabulary learning experiences in game-based learning context and investigated their experience as they built their own games based on their understanding of different non-fiction texts. This mixed-methods case study involved novel use of network analysis to examine student learning, investigate the relationship between various aspects of learner experiences and evaluate the strengths and weaknesses of the program. Findings indicated that a complex set of interdependencies between enactments of theoretical principles including generativity, agency, tinkering, intrinsic motivation, and contextualised learning ; lead to enjoyment and powerful language learning experiences.

Obando et al., (2023) conducted a study on “*Using Communicative Games to Improve Speaking in English as a Second Language*”. This study aimed to examine whether the use of communicative games can improve the students’ speaking ability in the learning process and how it influences them.

The sample were fifty-eight students (23 females and 35 males) between 16 and 18 years of twelfth grade at a public rural school in Manabi. This study used a descriptive qualitative method. The study revealed the effectiveness of games application as the experimental group outperformed the control group in the speaking components.

Rumpak (2022) studied “ *Improving Students’ Speaking Skills through Communicative Language Game at SMPN 2 Bua Ponrang*”. The objective of the study was aimed at improving the students’ speaking skills of grade students of SMPN 2 Bua Ponrang by applying a communicative language game. This research used Classroom Action Research (CAR). The subject of this study was students in Junior High School at SMPN 2 Bua Ponrang. The study revealed that communicative language games improved their speaking skills.

Kaur et al., (2020) conducted a review study on “*The Use of Language Games in Enhancing Students’ Speaking Skills*”. The objective of this systematic review is to present synthetic evidence found in past related studies on the influence of language games in improving English as Second Language learners’ speaking skills. The results of these studies illustrate the importance and positive impact of language games in enhancing students' speaking skills.

Morthy et al., (2020) examined “*The Use of Language Games in Enhancing ESL Learners’ Sentence Construction*”. This paper comprises a systematic review of relevant published studies from the year 2013 to 2020 on the use of language games in enhancing ESL learners’ sentence construction. Fifteen studies were systematically reviewed. Results indicate that both digital and non-digital language games are great tools to be used in a language classroom as it enhances ESL learners’ sentence construction by boosting their motivation in a fun learning atmosphere.

Dewi et al., (2017) studied “*Using Communicative Games in Improving Students’ Speaking Skills*”. The aim of this study was to know whether communicative games have an impact on teaching speaking skill. The study was conducted on the 36 students at Junior High Schools in Jakarta, Indonesia. Classroom Action Research (CAR) was implemented. The result of the study showed the mean score’s pretest reached 60.42 to 69.02 and post test score reached up to 78.77. There was a significant improvement of 13.9% to 41.7% in post test 1 and 83.33% in post test 2. It gave positive improvement on students’ active participation, confidence and their fluency in speaking skill.

Ibrahim (2017) studied “*Advantages of Using Language Games in Teaching English as a Foreign Language in Sudan Basic Schools*”. This study aimed at investigating the advantages of utilizing language games in

teaching English as a foreign language in Sudan Basic Schools. The sample of the study consisted of 30 English teachers in East Gezira Locality. The study adopted a quasi-empirical method. The results revealed that teaching language games are useful to learners.

Arifin et al., (2016) conducted a study “ *Teaching Speaking By Using Communication Games for Junior High School Students*”. The purpose of this study was to determine the use of communication games in speaking teaching and the advantages and disadvantages of communication games in teaching, speaking at the 8th grade at Nguntoronadi 1 Public Middle School in the 2013-2014 academic year. The method in this study is descriptive qualitative. The result of this study revealed that Communication Games can increase students’ interest in speaking, can improve student achievement in speaking, and can help students to actively communicate.

Ulviana (2016) conducted a study on “ *Improving Students Speaking Ability through Communication Games*”. The purpose of this study was to know whether students’ speaking ability could be improved through communication games. The research was conducted for the students of grade VII-B of Islmanic Junior High School of Manaratul Islam in which consisted of 36 students as respondents. The design adopted was Classroom Action Research (CAR). The result of this study showed that the implementation of

communication games toward students' English learning especially speaking skill is effective.

Atik (n.d.). conducted a study on *“Using Communicative Games in Improving Student’s Speaking Skills For Young Learners”*. The study aimed at using games which can create significant change in the teaching and learning practice. The researcher used collaborative action research. The instrument administered for both teachers and students. The result showed that games can be used as a teaching method when teaching languages.

2.4 CRITICAL REVIEW

The investigator reviewed 30 studies in which 20 reviews are related to linguistic intelligence and 10 reviews related to language games. Most of the studies are Experimental Studies. Few studies are conducted based on reviewing various literature. In the total of 30 studies, the majority of the studies are conducted on school students. The studies adopted mixed-methods, correlation quantitative design, qualitative case study approach, quasi - experimental, and classroom action research. Studies revealed the importance of linguistic intelligence and different strategies to enhance it. Language games proved to be one of the best ways to improve language proficiency. These reviews helped the researcher to gain adequate insights into the nature of the problem under the study. The investigator critically reviewed the reports, studies, design and methods, sampling techniques, tools used and their recommendations for the further research. Only few

studies are available for language games and linguistic intelligence, so to fill the gap the investigator conducted the study on development of language games in English for enhancing the linguistic intelligence among secondary school students.

CHAPTER III

METHODOLOGY

- ❖ METHOD ADOPTED FOR THE STUDY
- ❖ CONSTRUCTION AND VALIDATION OF THE
LINGUISTIC INTELLIGENCE TOOL
- ❖ STATISTICAL TECHNIQUES USED FOR THE
STUDY

CHAPTER - III

METHODOLOGY

According to Clifford Woody research comprises defining and redefining problems, formulating hypotheses or suggested solutions; collecting, organizing and evaluating data, making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis (Kothari, 2004).

According to Best and Khan (2002), "Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events".

Research methodology involves the systematic procedures by which the researcher starts from the initial identification of the problem to its final conclusions. The role of the methodology is to carry on the research work in a scientific and valid manner. The methodology consists of procedures and techniques for conducting a study. Research methodology involves such general activities as identifying problems, review of the literature, formulating hypotheses, procedure for testing hypotheses. measurement, data collection, analysis of data, interpreting results and drawing conclusions. Thus, research methodology consists of all general and specific activities of research (Yogesh Kumar Singh, 2006).

The scope of research methodology is wider than that of research methods. Thus, research methodology not only considers the research methods but also considers the logic behind the methods that are used in the context of a research study and explain why a particular method or technique is chosen for this study and why not using other methods. The researcher chose a certain methodology for his problem as the same may differ from problem to problem.

3.1 METHOD ADOPTED FOR THE STUDY

The type of data that the research topic seeks upon must be considered while choosing a method and a specific design for a particular problem. However, the methodology chosen must be consistent with scientific principles and sufficiently enough to enable reliable generalization.

According to Paul E, Green and Tull, "a Research Design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern or framework of the project that stipulates what information is to be collected from which sources by what procedures. If it is a good design, it will ensure that the information obtained is relevant to the research questions and that it was collected by objective and economical procedures (Shraddha Bhome et al., 2013).

The present study is concerned with investigating the "Development of Language Games in English for enhancing Linguistic Intelligence among

Secondary School Students”. Therefore the investigator followed an experimental method for the study.

Design of experimental study

Experimental study is mainly an organized and logical approach for testing hypotheses. According to Best and Khan (2002). "Experimentation is the classic method of the science laboratory, where elements manipulated and effects observed can be controlled. It is the most sophisticated, exacting and powerful method for discovering and developing an organized body of knowledge".

According to William Wierana and Stephen G. Jurs (2009) described that experimental design is a preconceived plan for conducting an experiment. More specifically, an experimental design is the structure by which variables are positioned. arranged or built into the experiment.

In an experiment, the results of one treatment are contrasted with those of another treatment or with no treatment at all. In a simple conventional experiment, the terms experimental group and control group are used. These groups are as closely compared and it is practical. The control group is not exposed to the effect of the specific treatment, but only for the experimental group.

The design selected for the present study was Pretest-Posttest Nonequivalent Groups Design. Best and Khan (2009) described that Pretest-Posttest Nonequivalent Groups Design is often used in classroom

experiments when experimental and control groups are naturally assembled groups as intact classes, which may be similar. The pretest is applicable for both the groups. Post test has been applied to both the experimental group after the treatment and control group without the treatment. Best and Khan (2009) illustrated the Pretest-Posttest Nonequivalent Group Experimental Design as,

$$O_1 \text{ X } O_2$$

$$O_3 \text{ C } O_4$$

Where

X - Experimental Group

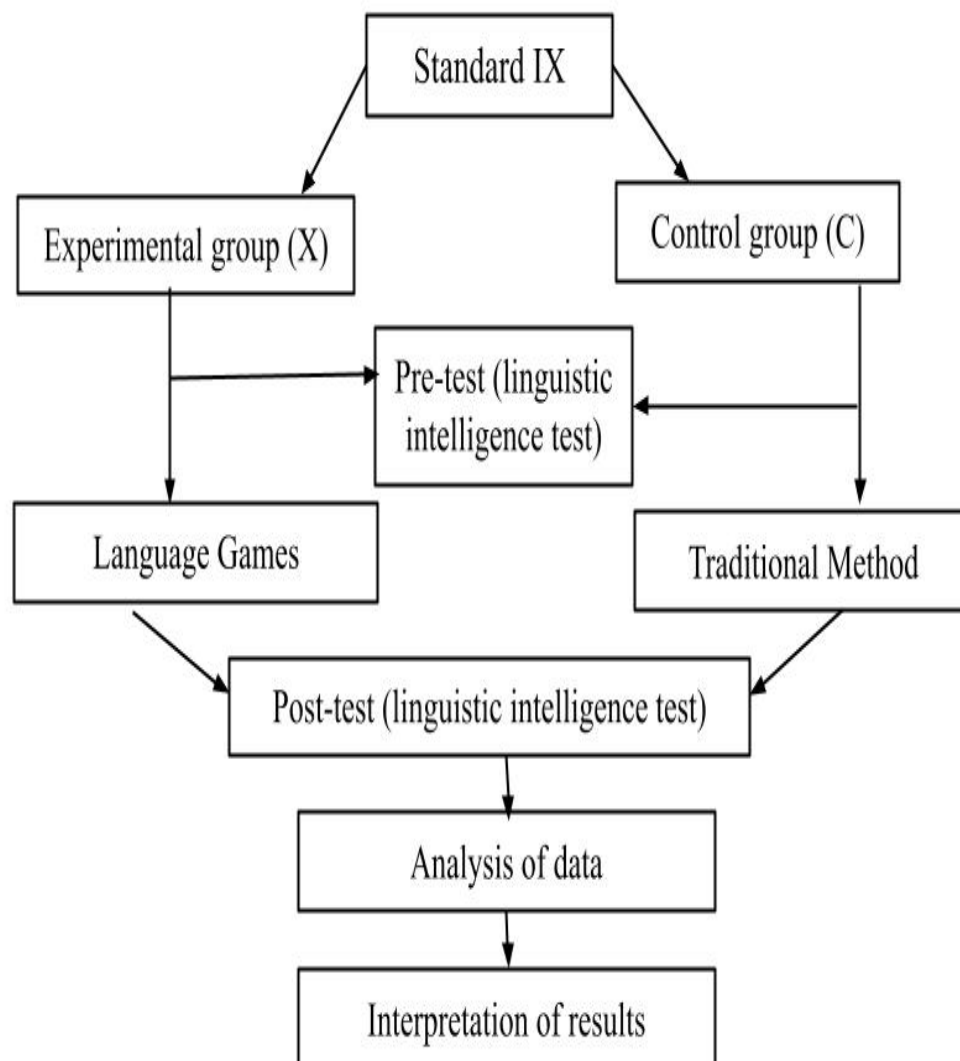
C - Control Group

O₁ & O₃ -Pretest

O₂ & O₄ -Posttest

Figure 3.1

Diagrammatic representation of Nonequivalent Group Design



Variables of the study

Variables are referred to as the condition or characteristics that the experimenter manipulates, controls or observes (Best & Khan, 2002). If the hypothesis and its implications are thoroughly considered, then two specific factors can be distinguished. They are

a) Independent variable

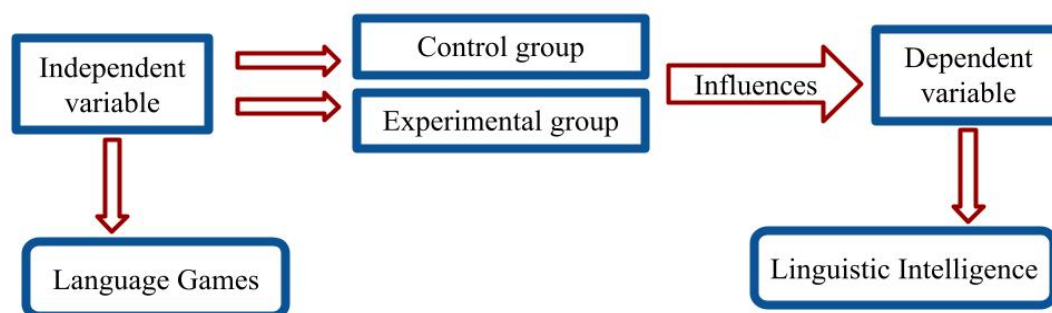
b) Dependent variable

Independent variable

In an experiment, the manipulated variable is referred to as the independent variable. It is directly under the experimenter's control, which has the power to change it to fulfill any goal. In this study, the method of teaching is an independent variable. The experimental group was treated with language games in teaching. The control group was not administered with any specific or special programmes. The control group was treated by traditional methods of teaching.

Dependent variable

In an experiment, the variable being tested and measured is known as the dependent variable since it depends upon the independent variable. In this study, linguistic intelligence is a dependent variable.

Figure 3.2*Design of Experimental Study***Population**

The term "population" describes the complete group of people from whom the observer seeks to draw any conclusions. A population is any group of individuals who have one or more characteristics in common that are of interest to the researcher. The population may be all the individuals of a particular type or more restricted part of that group (Best & Khan, 2007). For the present study the population of class nine students who are studying in various schools of Kanniyakumari district in Tamil Nadu following State Board Syllabus during the academic year 2024-2025.

Sample

A sample is a discrete segment of the population chosen for research and observation. One can draw conclusions about features of the population it is derived from by analyzing the details of the sample. For the present study, the sample consists of 119 students studying in nine standard students from Marthandam Educational District of Kanniyakumari District in Tamil Nadu.

Sampling

Sampling is a technique for choosing certain individuals or a small portion of the population in order to draw conclusions about the overall population and to evaluate its characteristics. The investigator adopted a simple random sampling technique to select as sample and 119 class nine students from Yettacode Higher Secondary School were selected as samples. Among the 119 students through random selection 63 students were assigned in the experimental group and 56 students were assigned in the control group.

Tools used for the study

The tool used in the study were,

- I. Language Games Package and validation of the package for enhancing Linguistic Intelligence in English.
- II. Lesson transcripts based on language games for enhancing Linguistic Intelligence in English.

III. The Linguistic Intelligence test was constructed and validated by the investigator and guide.

I. Language Games Package

A. Procedure of tool development

This section deals with the procedure of tool development.

Tool: 1 Procedure for the development of Language Games Package for enhancing linguistic intelligence in English.

Tool: 1 Procedure for the development of Language Games Package for enhancing linguistic intelligence

Language games are essential for enhancing linguistic intelligence as they make learning English fun and engaging, increasing student motivation and participation. By integrating multiple language skills, such as reading, writing, listening, and speaking, language games promote a holistic understanding of the language. They cater to different learning styles, provide opportunities for practice and reinforcement, and help build confidence and fluency. Additionally, language games foster creativity, critical thinking, and problem-solving skills, while promoting collaborative learning and social interaction. By incorporating language games into English language instruction, teachers can create a more interactive and effective learning environment that enhances linguistic intelligence among secondary school students.

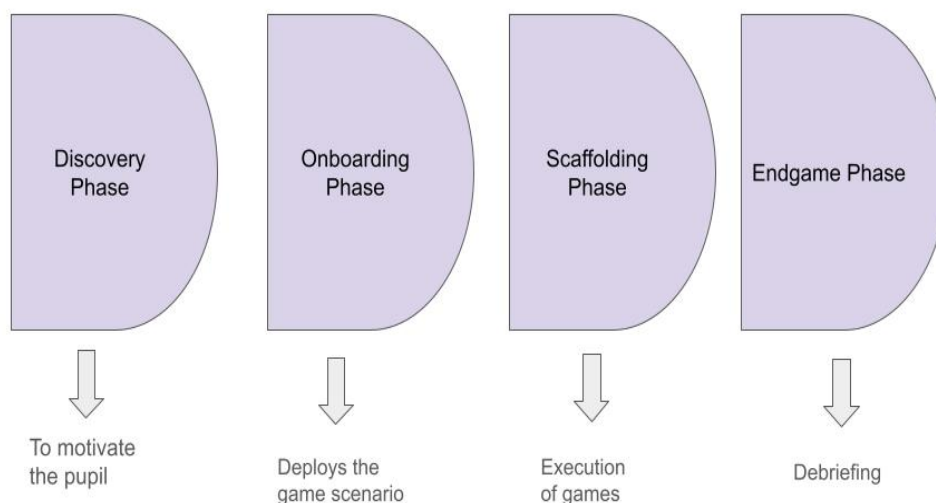
According to Saricoban & Metin (2000), games provide competition to enhance the motivation of the students. Jung (2005) also suggests that

games create competition for students, having the opportunity to work together and communicate using English with each other. Thus, competition will help students pay attention to learning and engage in the activities in the class much more. Thus the researcher decided to prepare a language games package based on a systematic procedure, to learn English and to enhance their linguistic intelligence and to know the effects of language games on learning English and enhancing the language proficiency of nine standard students. By doing this, the investigator wanted to study the comparison between the lecture method of learning English through the control group and the learning and practising English through the application of language games package in the experimental group.

Language games Procedure

Language game package for Learning English

Language game package is planned and prepared by the investigator to find out the enhancement of linguistic intelligence of ninth standard by using Experimental design. The language game package contains games for enhancing their linguistic intelligence. It includes the name of the game, the materials used for playing the game, duration, and procedure of the game. By using this package, the students play a game while the teacher remains available when needed. The Language Games Package also promotes the students' coordination and motivation.

Figure 3.3*Phases of Language Game Procedure (DOSE)*

The language game package has four phases. The abbreviation DOSE stands for the four phases of student's learning. The phases selected for the preparations of Language Games Package by the investigator based on the rules and principles of Gamification phases by Yu-kai Chou's Gamification & Behavioural Level 2 Octalysis Design from the Book *Actionable Gamification: Beyond Points, Badges, and Leaderboards* (2015).

Phase I: Discovery Phase

The discovery phase is the first and shortest of four phases. It is like the cover design that draws students in even before they read the book. This phase takes five minutes which is used to review the students' prior knowledge on the topic of the study.

Phase II: Onboarding Phase

Onboarding is the second-shortest phase. This phase introduces students to their learning through games. This is typically based on the teacher's introduction over the game scenario, including the rules, procedures, and scoring. But in a gamified experience, this phase sets up the game. It takes five minutes. Procedures for game playing and the assignment are part of this phase. This phase is important because the students can know the rules and roles of the game. Otherwise, the fear of failing and succeeding may demotivate them. To achieve intrinsic learning during this phase, the teacher makes students feel smart and work hard in gaming to improve their experience.

Phase III: Scaffolding Phase

The scaffolding phase is the longest. This is the phase where students play games to enhance their linguistic intelligence. This is the uphill part of executing games when students remain focused on their success. It takes 30 minutes. The purpose of scaffolding is to make the students engage in actual learning experiences through games. It is executed for experimental group.

Phase IV: Endgame Phase

Endgame Phase is the second- longest phase. The goal of the end game phase is to display students' progress and contribute back to the class. This phase takes five minutes. During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

Table 3.1*Language Games Package at a Glance (DOSE)*

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
1.	Analogy	Introduction of Srinivasa Ramanujan In this phase, the students recall the prior knowledge about Ramanujan and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Analogy Adventure	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
2	Syllogism	Introduce the class by asking “If you are given an opportunity to go on a one-way trip to Mars, will they accept it?”. In this phase, the students recall the prior knowledge on space and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Logic Ladder	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
3	Riddles	Introduction of Jawaharlal Nehru . In this phase, the students recall the prior knowledge about Jawaharlal Nehru and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Word Wizard	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
4	Poetic Devices	Introduce the class with a crossword puzzle. In this phase, the students recall the prior knowledge on Galaxy and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Poetic Insights	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
5	Grammar	Introduction of Irregular Verbs In this phase, the students recall the prior knowledge on past tense and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Grammar Quest	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

S. No.	Aspect	Phase I	Phase II	Phase III	Phase IV
6	Vocabulary	Introduce the class by asking them to narrate a memorable incident which happened during that celebration. In this phase, the students recall the prior knowledge on the different festivals and are motivated to learn.	Onboarding phase sets up a game scenario with rules, roles, steps, goals and scoring.	In this phase the teacher executes the game. The game is Word Warrior	During this phase, the teacher debriefs the learning experience and asks the students to clear up the doubts.

Concept Design Document for the Language Games:

Game overview:

This game is designed to improve players' linguistic intelligence through interactive mini-games and exercises. It combines engaging gameplay with educational content to provide a fun yet effective learning experience. These mini-games are inspired by the reference game- English Skills - Practice and Learn, it offers challenges that adapt to the player's skill level.

Target Audience

- Age Group: 10+ years
- Players interested in improving their English language skills
- Casual learners and students

Platforms

- Mobile (iOS & Android)
- PC (via browser or standalone application)

Game Modes

1. Learning Mode:

- No time limits
- Detailed explanations and hints for errors
- Unlimited retries

2. Challenge Mode:

- Timed gameplay
- Competitive scoring system
- Leaderboard integration

Core Gameplay Features

1. Progressive Levels: Unlockable stages based on skills such as vocabulary, grammar, and logical reasoning.

2. Adaptive Difficulty: Game adjusts challenge levels based on player performance.

3. Rewards System: Points, badges, and achievements like stars for progress and streaks.

4. Hints & Power-Ups: Assist players in completing difficult task

Visual Design

- **Theme:** Colourful interface with educational yet playful aesthetics.
- **Character Design:** Customizable avatars to represent players.
- **Environment:** Each mini-game features unique visual themes relevant to the activity.

Audio Design

- Soothing background music tailored to each game mode.
- Sound effects for correct/incorrect answers and achievements.

- Voice-over instructions for accessibility.

Technical Requirements

- 1. Game Engine: Unity**
- 2. Supported Devices:** Mobile devices and PC
- 3. Storage Requirements:** Minimal size for fast downloads and installation
- 4. Performance Optimization:** Smooth gameplay on low and high-end devices

Key Success Metrics

- Player engagement and retention rates
- Daily and monthly active users
- Educational outcomes and skill improvement user feedback and reviews
- User feedback and reviews

Development Timeline

- 1. Pre-Production (1 day)**
 - Quick design overview
 - Basic asset gathering
- 2. Production (3 days)**
 - Core features development

- Essential mini-games
- Basic testing

3. Future Enhancements

- Multiplayers challenges
- Listening comprehension mini-games
- Creative writing tasks evaluated by AI
- Advanced analytics for personalized learning insights

Validation of Language Games Package

Language game was prepared by the investigator and a technical team, aimed to enhance the linguistic intelligence of the class nine students. The language game package was validated by two experts including subject teacher and technical expert.

II. Lesson Transcript

Lesson transcripts are basically the plan of action for the teaching and learning process. For this study, the investigator constructed the lesson transcripts based on language games like word warrior, word wizard, analogy adventure, grammar quest, logic ladder, poetic insights for teaching English of class nine students which includes the chapters such as prose, poem, grammar.

III. Linguistic Intelligence Test

The investigator constructed and validated the tool and employed the Linguistic Intelligence test as the tool for collecting the data.

3.2 CONSTRUCTION AND VALIDATION OF LINGUISTIC INTELLIGENCE TEST

The Linguistic Intelligence test in English Language was prepared by S H Adhiti and Dr. V. S. Pavithra Kumar (2025), aimed to measure the Linguistic Intelligence of the class IX students.

For the construction of the Linguistic Intelligence test the investigator adopted the following steps

1. Planning of the test
2. Item writing
3. Item editing
4. Preliminary try - out
5. Pilot Study
6. Scoring
7. Item analysis
8. Item selection
9. Final draft
10. Establishing reliability and validity

1. Planning of the test

Linguistic Intelligence test in English prepared by Adhiti S H and Dr. V. S. Pavithra Kumar (2025), aimed to measure the Linguistic Intelligence

of the students of class IX. While planning the test, due importance was given to the contexts of the English textbook of class IX. The investigator planned to include different areas of Linguistic Intelligence namely synonyms, framing new words, idioms and meanings, finding the hidden words, solving riddles, identifying famous writers, and crossword puzzles. The total items included was 100 and the total marks to be 100. The duration of the test was fixed to 45 minutes.

2. Item Writing

Items of Linguistic Intelligence were written after having thorough study of related literature available on various Linguistic Intelligence tests. The investigator collected materials and constructed a large number of questions in different areas for preparing Linguistic Intelligence tests. The items in the test were based on the Stateboard syllabus. The different areas in the test were synonyms, framing new words, idioms and meanings, finding the hidden words, solving riddles, identifying famous writers, and the crossword puzzle. The respondent must answer the question according to the instructions given. The written items are given for item editing.

3. Items Editing

It needs care and thorough knowledge of the subject. In item editing, the investigator checked the relevance of items included in the test. Then the investigator checked the clarity of the items. After editing by the investigator the test was given to three experts including teacher educators, and school teacher who taught English. Based on their suggestions, the ambiguous and

some irrelevance were removed and modified. The items were rewritten in simple and meaningful language.

4. Preliminary tryout

The final draft of the Linguistic Intelligence was administered to 10 students of class IX to check the practicability of the test, namely, the duration needed for answering, difficulty level and clarity of the test items. After the completion of the test, time taken to complete the test, vagueness of the items were checked.

5. Pilot Study

The investigator conducted the pilot study for the draft form of Linguistic Intelligence test from 13-11-2024 to 18-11-2024. The draft form of the Linguistic Intelligence test consists of 100 items. The copy of the rough draft was attached in Appendix A. The investigator visited various schools of Kanniyakumari District. The investigator administered the tool individually to the class nine students. Proper guidance was given to the students about the tool. After marking their responses, the investigator collected the tool. The investigator collected the sample of 200 class nine students for the purpose of item analysis after scoring the response sheets.

6. Scoring

The scoring key was prepared for each item and its corresponding marks. For each correct answer a score of one was assigned and for wrong response a Zero score was given. After the completion of scoring the data

was subjected for analysis and interpretation. The scoring key of the rough draft was enclosed in Appendix B.

7. Item analysis

Item analysis is a process in which the students' responses to individual test items are assessed in order to identify the quality of those items and for the whole test. For analyzing, the investigator used the method of the Difficulty Index and Discriminative Power method of item analysis. For this, the answer sheets of respondents were arranged in the descending order, from the top to the bottom. Then the top 27% of the answer scripts from the top was considered as 'Upper Group' and 27% of the answer scripts from the bottom was considered as 'Lower Group'.

The difficulty Index and discriminative power of each item can be calculated by using the formula,

$$\text{Difficulty Index, } D_L = \frac{R_H + R_L}{N_1 + N_2}$$

$$\text{Discriminative Power, D P} = \frac{R_H - R_L}{N}$$

Where,

R_H - Number of responses in the Upper Group

R_L - Number of correct responses in the Lower Group

N - Number of students in the Upper or Lower Group

The details of item analysis were given.

Table 3.2*Selected items for Linguistic Intelligence Test*

Item No	Discriminative power	Difficulty Index
1	0.074	0.407
2	0.111	0.370
3	0.111	0.593
4	0.241	0.491
5	0.111	0.444
6	0.259	0.407
7	-0.037	0.556
8	0.185	0.407
9	0.093	0.213
10	0.130	0.306
11	0.278	0.750
12	0.519	0.278*
13	0.519	0.296*
14	0.204	0.657
15	0.000	0.519
16	0.093	0.398
17	0.074	0.630
18	0.667	0.370*
19	-0.037	0.241
20	-0.074	0.204

21	0.519	0.296*
22	0.407	0.278*
23	0.704	0.463*
24	0.019	0.213
25	0.111	0.241
26	-0.093	0.380
27	0.130	0.194
28	0.259	0.278
29	0.111	0.241
30	0.093	0.380
31	0.185	0.426
32	0.074	0.259
33	0.167	0.306
34	0.130	0.231
35	0.074	0.315
36	0.056	0.231
37	0.056	0.306
38	0.093	0.343
39	0.019	0.306
40	0.037	0.241
41	0.093	0.306
42	0.130	0.231
43	0.056	0.213
44	0.148	0.296
45	0.093	0.213

46	0.130	0.417
47	0.000	0.389
48	0.204	0.213
49	0.019	0.306
50	0.130	0.380
51	0.352	0.639
52	0.519	0.296*
53	0.667	0.370
54	0.741	0.389*
55	0.630	0.500
56	0.519	0.278
57	0.778	0.389*
58	0.796	0.472*
59	0.667	0.370
60	0.407	0.241
61	0.759	0.472*
62	0.352	0.509*
63	0.389	0.435*
64	0.537	0.361*
65	0.463	0.287*
66	0.796	0.417*
67	0.444	0.259*
68	0.778	0.389*
69	0.463	0.417*
70	0.796	0.417*

71	0.426	0.231*
72	0.352	0.509*
73	0.778	0.389*
74	0.537	0.361*
75	0.389	0.435*
76	0.426	0.287 *
77	0.463	0.417*
78	0.519	0.389*
79	0.426	0.509*
80	0.407	0.333*
81	0.519	0.278*
82	0.759	0.472*
83	0.352	0.509*
84	0.463	0.287*
85	0.796	0.472*
86	0.519	0.296*
87	0.778	0.481*
88	0.796	0.417*
89	0.407	0.278*
90	0.667	0.370*
91	0.519	0.278*
92	0.519	0.296*
93	0.426	0.269*
94	0.333	0.241*
95	0.407	0.278*

96	0.333	0.278*
97	0.426	0.306*
98	0.315	0.213*
99	0.444	0.259*
100	0.315	0.250*

Note: * denotes the selected items

8. Item Selection

Item selection means testing the items for selection in which the investigator selects the items for testing from the original responses of the students and then based on the Difficulty Index and Discriminative power the items was selected. Items having difficulty level between 0.20 and 0.50 and the discriminating power above 0.04 are selected for the final test.

9. Final draft

The final draft of the Linguistic Intelligence Test consists of 50 items and it was attached in Appendix C.

10. Establishing reliability and validity

Reliability and validity are essential to the effectiveness of any data gathering procedure.

Reliability

Reliability mainly signifies the consistency of the measurement of the instrument which remains the same whenever it is used. The reliability of a test can be assessed in different ways. For this study the reliability

coefficient of the tool was found using the Split Half method. Using Pearson Product Moment correlation stated by Sharma (2003), 0.9130.

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

Where,

r = Reliability coefficient of split half test.

x = Total score of odd items

y = Total score of even item

xy = Estimated reliability of the whole test.

N = Total number of students in group

$$\text{Reliability Coefficient, } R = \frac{2r}{1+r}$$

Where,

R = Reliability Coefficient

r = Reliability coefficient of split half test.

Table 3.3*Reliability result for Linguistic Intelligence Test*

Contents	Percentage
Number of Sample	200
Number of items	50
Correlation between odd half and even half items	0.84
Reliability Coefficient	0.91

The split half reliability coefficient has been calculated. From the table, it shows that correlation between odd half and even half items has 0.84 reliability. This reveals that the Linguistic Intelligence Test possesses 0.91 reliability.

Validity

Validity of the test answers the question what a test measures and how well it measures it whatever it is designed to measure for. Best (1978) clarifies, “A test possesses validity to the extent that it measures what it claims to measure”.

The two types of validities established for this tool were face validity and content validity.

Face validity

Face validity means the given tool appears to what is intended to measure. The tool was submitted to a panel of experts and based on their opinion, it appeared to measure the relevant objectives of the tool. A close look at the items of the scale reveals that each and every item is capable of reflecting the variable. This provides face validity for the tool.

Content validity

Content validity is one of the gathering evidence which will support the ideas that a scale measures. Certain characteristics are to make a careful examination of the scale taking situation and the test behaviour in it. The content validity of the present scale was found by systematically analysing the area by the panel of one expert in the field of education and technology. On the basis of their opinion the scale has sufficient coverage to its content. The content coverage is an indication of its validity.

Procedure Adopted for Experimentation

The investigator followed four steps for conducting an experiment using language games of class nine students. The four steps are as follows,

i. Formation of the group for the study

The investigator selected two intact classes of grade nine students. The two groups were assigned randomly as experimental group and control group. From the total 119 samples of students, 63 students were assigned randomly in the experimental group and 56 students were assigned in the control group.

ii. Administration of pre - test

After having enough introductions about the purpose of the study, the investigator found a rapport with the students. The pre - test was administered to the students of two groups by the investigator before the commencement of the experiment. The filled in Linguistic Intelligence Test was scored using the scoring key and the scores were subjected to statistical analysis.

iii. Treatment

After the administration of the pre test, the experimental group was taught using the experimental method for 20 days. The lesson transcripts are enclosed in Appendix F. The control group was taught using traditional methods.

iv. Administration of post - test

After teaching English for both the experimental and control groups, the post - test was administered to measure the linguistic intelligence of the students. The same Linguistic Intelligence Test was used for the pre - test and post - test of the both experimental and control group in adjacent periods.

3.3 STATISTICAL TECHNIQUES USED FOR THE STUDY

Statistical techniques are crucial for all types of research. The appropriate statistical method aids the researcher in analyzing and interpreting the study's data in a useful way.

For the analysis of the data following statistical techniques were used.

i. Independent t test for large sample

An independent t test also known as an unpaired t test is a statistical procedure that compares the averages/ means of two independent or unrelated groups to determine if there is a significant difference between the two. Sharma R. A., (2007) noted the formula for calculating independent t test for large sample as;

$$t = \frac{m_1 - m_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Where

t = t test for the difference of two means

M₁ = Mean of first sample

M₂ = Mean of second sample

σ_1 = standard deviation of first sample

σ_2 = standard deviation of second sample

ii. Paired t test for small sample

A paired t test is also known as a dependent or correlated t test. It is a statistical test that compares the averages / means and standard deviations of two related groups to determine if there is a significant difference between the two groups. Sharma.R, A., (2007) noted the formula for calculating paired t test for small samples as;

$$t = \frac{M_1 - M_2}{S_{ED}}$$

Where

$$S_{ED} = \sqrt{\frac{\sigma_1^2}{N} + \frac{\sigma_2^2}{N} - 2r \frac{\sigma_1 \sigma_2}{N}}$$

r = correlation coefficient between paired observation

σ_1 = standard deviation of first observation

σ_2 = standard deviation of second observation

N = size of the sample

iii. ANCOVA (Analysis of Covariance)

ANCOVA helps to find that the experimental group was better able to predict strong content from headlines after training than the control for differences on the pre test so that post test differences would not be due to initial differences before the training.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

- ❖ ANALYSIS OF DATA
- ❖ PRE-TEST ANALYSIS
- ❖ POST-TEST ANALYSIS
- ❖ ANCOVA ANALYSIS

CHAPTER- IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 ANALYSIS OF DATA

Analysis and Interpretation of data is one of the important steps in the research process. The term analysis of data means studying the tabulated material in order to determine inherent facts or meanings. After analyzing the data, the researcher has to accomplish the task of drawing inferences. Interpretation refers to the task of drawing inferences from the collected facts after an analytical study. Interpretation is essential for the simple reason that the usefulness and utility of research findings lie in improper interpretation. Thus, data analysis and interpretation is the device through which the factors that seem to explain what has been observed by researchers in the course of the study can be better understood and it also provides a theoretical conception which can serve as a guide for further researchers.

According to Sharma. A.R. (2008) says the prime responsibility of the educational researcher is that of being able to make either a probability or logical inference covering these hypotheses will ultimately determine what contribution the study makes to the scientific development of a particular area. This is especially tried in the analysis for interpretation of data.

The analysis and interpretation of data represent the application of deductive and inductive logic to the research process. The data are often

classified by division into subgroups, and are then analyzed and synthesized in such a way that hypotheses may be verified or rejected.

According to Dawit D.A. (2020) “Statistics is the body of mathematical techniques or processes of gathering, describing, organizing and interpreting numerical data. Since research often yields such quantitative data, statistics is a basic tool of measurement and research. The researcher who uses statistics is concerned with more than the manipulation of data, statistical methods goes back to fundamental purposes of analysis. Research in education may deal with two types of statistical data application: Descriptive statistical Analysis and Inferential Statistical Analysis”.

Interpretation is the process of making deductions from the facts gathered after doing an analytical investigation. According to C. William Emory, “Interpretation has two major aspects namely establishing continuity in research through linking the results of a given study with those of another and the establishment of some relationship with the collected data” (Shraddha Bhome et al., 2013). The purpose of interpretation is to accumulate a deeper comprehension of the variables that seem to account for the observations made by the researcher during the course of the study. An interpretation provides a theoretical foundation that permits subsequent studies.

The analysis and interpretation of data are the two most significant phases of research. It is regarded as a very technical and highly skilled job. For data analysis, the researcher should have a clear understanding of data,

better judgement, skills, generalization and familiarity with the background goals and hypothesis of the study.

In this study the analysis was done using the statistical techniques t - test and Analysis of Co-variance (ANCOVA). Best and Khan (2009) described that ANCOVA helps to find that the experimental group was better able to predict strong content from headlines after training than the control group. They also suggested that ANCOVA permits its investigator to statistically control for differences on the pretest so that post test differences would not be due to initial differences before the training. The analysis of data was the computed result which was done through the SPSS software.

The details of analysis are given below in the following heads;

1. Comparison of the pretest mean scores in the linguistic intelligence test of the experimental group and the control group with respect to the total students.
2. Comparison of the posttest mean scores in the Linguistic intelligence test of the experimental group treated with language games and the control group with respect to the total students.
3. Comparison of the mean adjusted post test scores in the linguistic intelligence test of the experimental group and the control group with respect to the total students.

4.2 PRE TEST ANALYSIS

Comparison of Linguistic Intelligence score under Instructional Design Method and Traditional method at Pretest level

H₀ 1 Null Hypothesis

There exists no significant difference in the pretest scores of linguistic intelligence in English of class nine students in the experimental and control groups.

Table 4.1

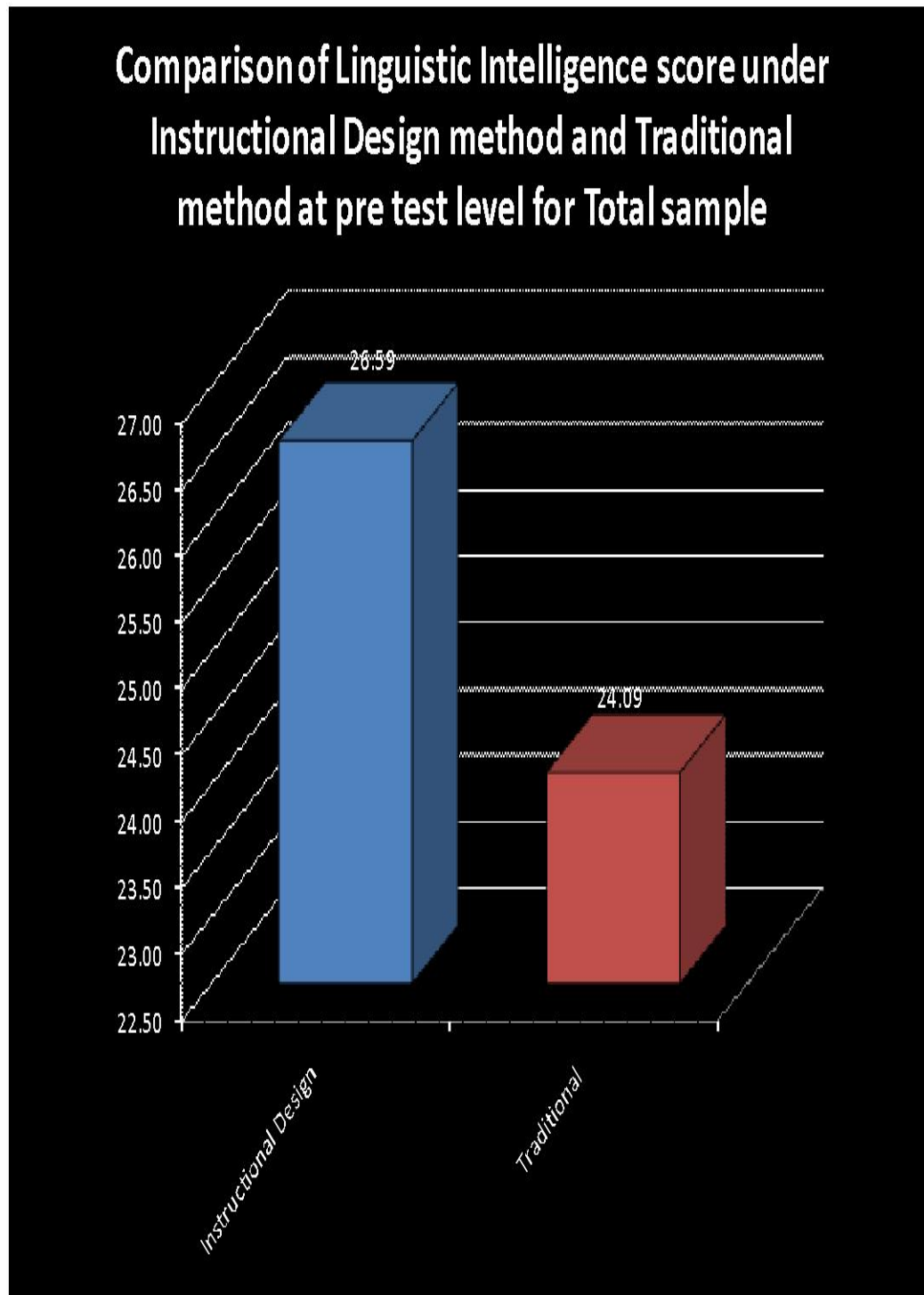
Summary of Mean, SD and t scores of Linguistic Intelligence pretest scores of class nine students of the experimental and control group.

Group	Mean	SD	N	Mean Difference	t	p	Sig.level
Instructional Design	26.59	6.47	63	2.50	1.606	0.111	NS
Traditional	24.09	10.27	56				

From table 4.1, it is clear that $p > 0.01$ and is not significant at any level. Therefore the null hypothesis “there exists no significant difference in the pretest scores of linguistic intelligence in English of class nine students in the experimental and control groups”, is accepted. From the mean scores it can be said that linguistic intelligence scores of experimental group and control group do not differ significantly.

Figure 4.1

Comparison of Linguistic Intelligence score under Instructional Design Method and Traditional method at Pretest level for total sample



4.3 POST TEST ANALYSIS

Comparison of linguistic intelligence scores under Instructional Design Method and Traditional method at post test level.

H₀ 2 Null Hypothesis

There exists no significant difference in the mean post test scores of linguistic intelligence in English of class nine students of the experimental and control groups.

Table 4.2

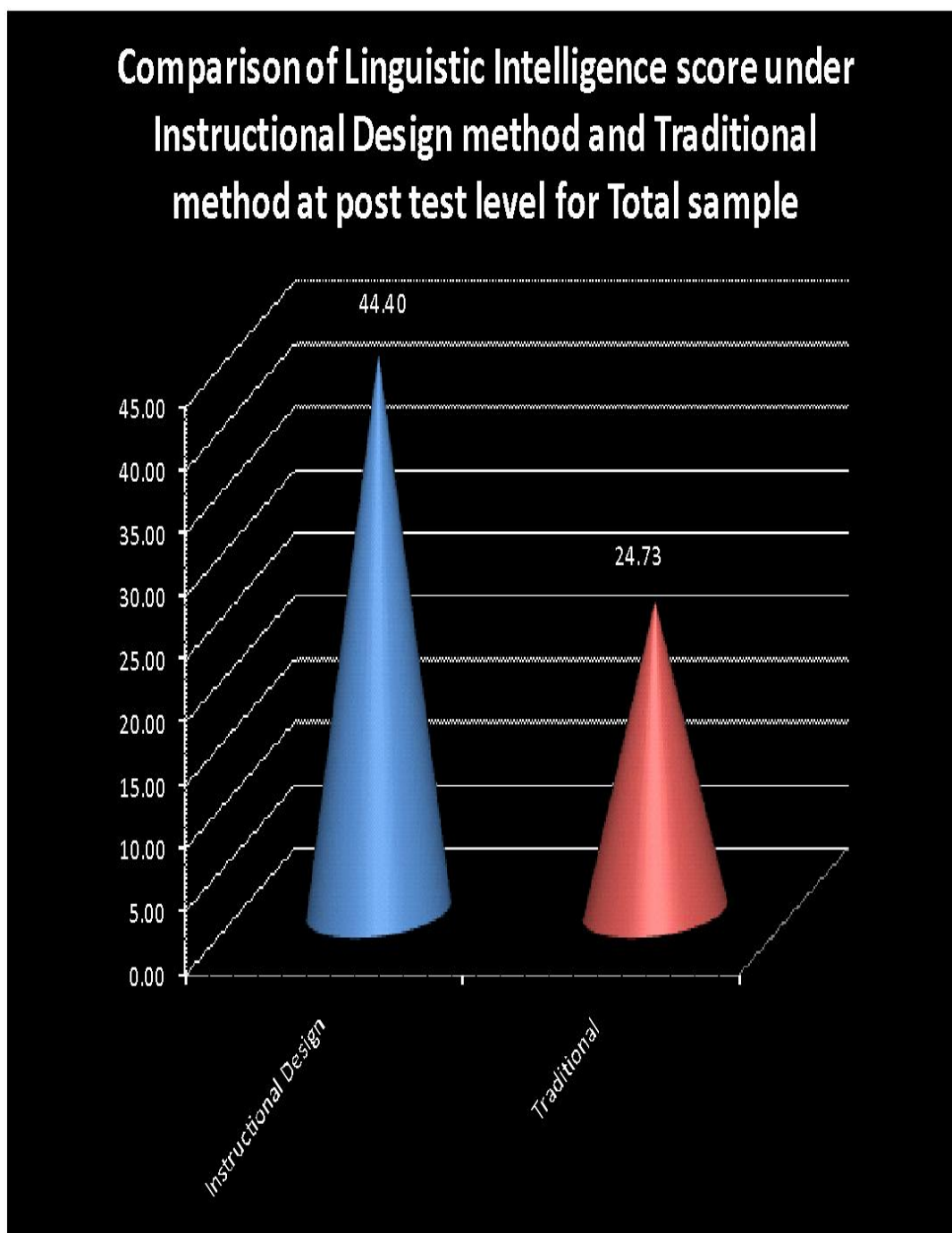
Summary of Mean, SD and t scores of Linguistic Intelligence posttest scores of class nine students of experimental and control groups.

Group	Mean	SD	N	Mean Difference	t	p	Sig.level
Instructional Design	44.40	2.79	63	19.67	12.223	0.000	0.01
Traditional	24.73	12.43	56				

From the table 4.2, it is clear that $p < 0.01$ and is significant at 0.01 level. Therefore the hypothesis “there exists no significant difference in the mean post test scores of linguistic intelligence in English of class nine students of the experimental and control groups”, is rejected. From the mean scores it can be said that the linguistic intelligence of students in the experimental group is higher than that of students in the control group.

Figure 4.2

Comparison of linguistic intelligence score under Instructional Design method and Traditional method at post test level for total sample



Effectiveness of Instructional Design method in linguistic Intelligence

H₀ 3 Null Hypothesis

There exists no significant difference in the pre and post test scores of linguistic intelligence in English of class nine students of the experimental group.

Table 4.3

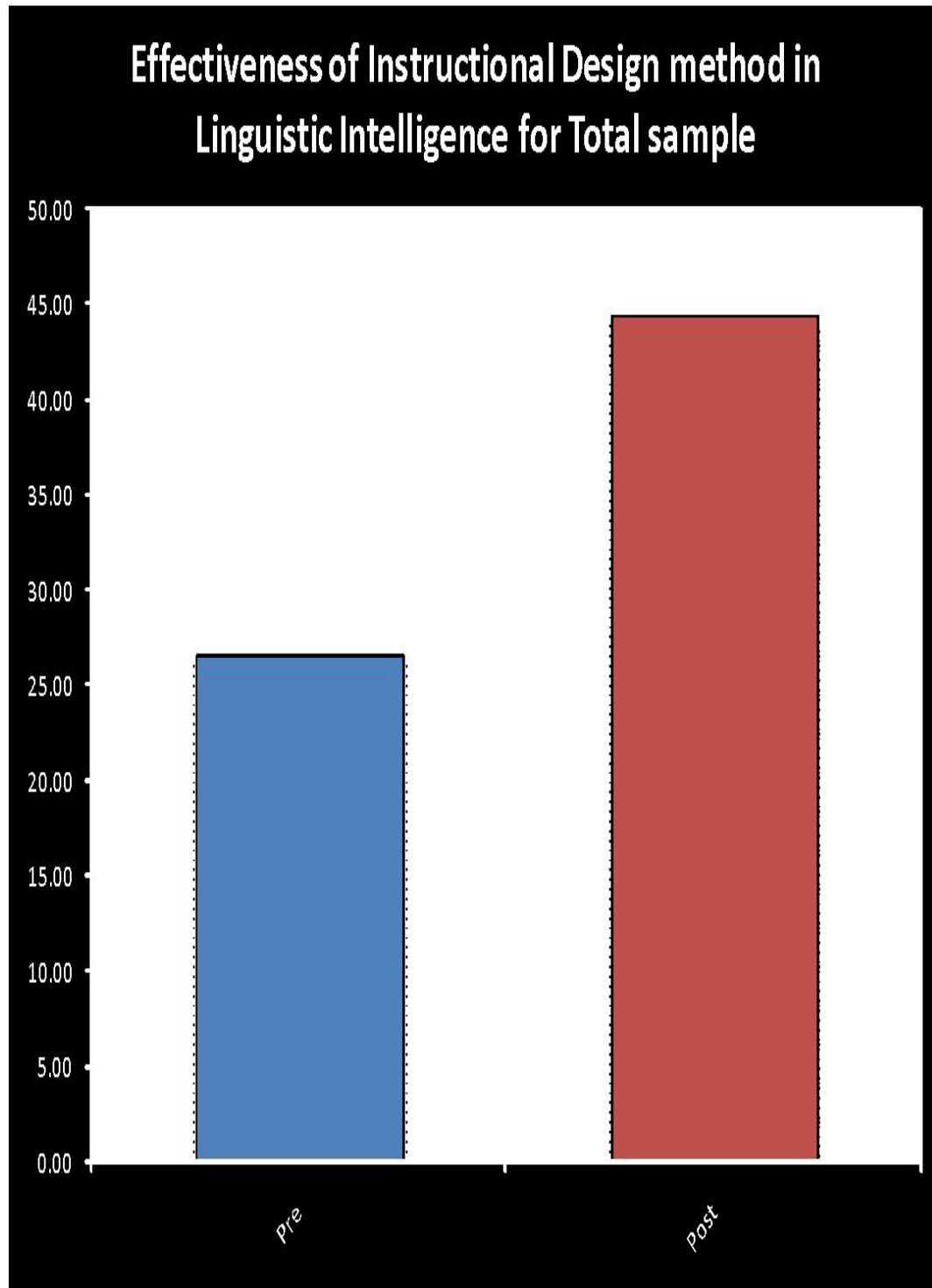
Summary of Mean, SD, and t scores of Linguistic Intelligence test scores of class nine students in the experimental group

	Mean	SD	N	Mean Difference	Paired t	Sig.	Sig.level
Pre	26.59	6.47	63				
				17.81	19.80	0.000	0.01
Post	44.40	2.79	63				

From the table 4.3, it is clear that $p < 0.01$ and is significant at 0.01 level. Therefore the hypothesis “there exists no significant difference in the pre and post test scores of linguistic intelligence in English of class nine students of the experimental group”, is rejected. From the mean scores it is clear that post test scores of linguistic intelligence are higher than pre test scores of linguistic intelligence of the students in the experimental group. Hence Language Games are found to be an effective approach to develop the linguistic intelligence in English of secondary school students.

Figure 4.3

Effectiveness of Instructional Design method in Linguistic Intelligence for total sample



4.4 ANCOVA ANALYSIS

Comparison of Linguistic Intelligence under Language Games and Traditional Method for Total sample

There exists no significant difference in the mean adjusted scores of linguistic intelligence in English of class nine students of the experimental and control groups.

Table 4.4

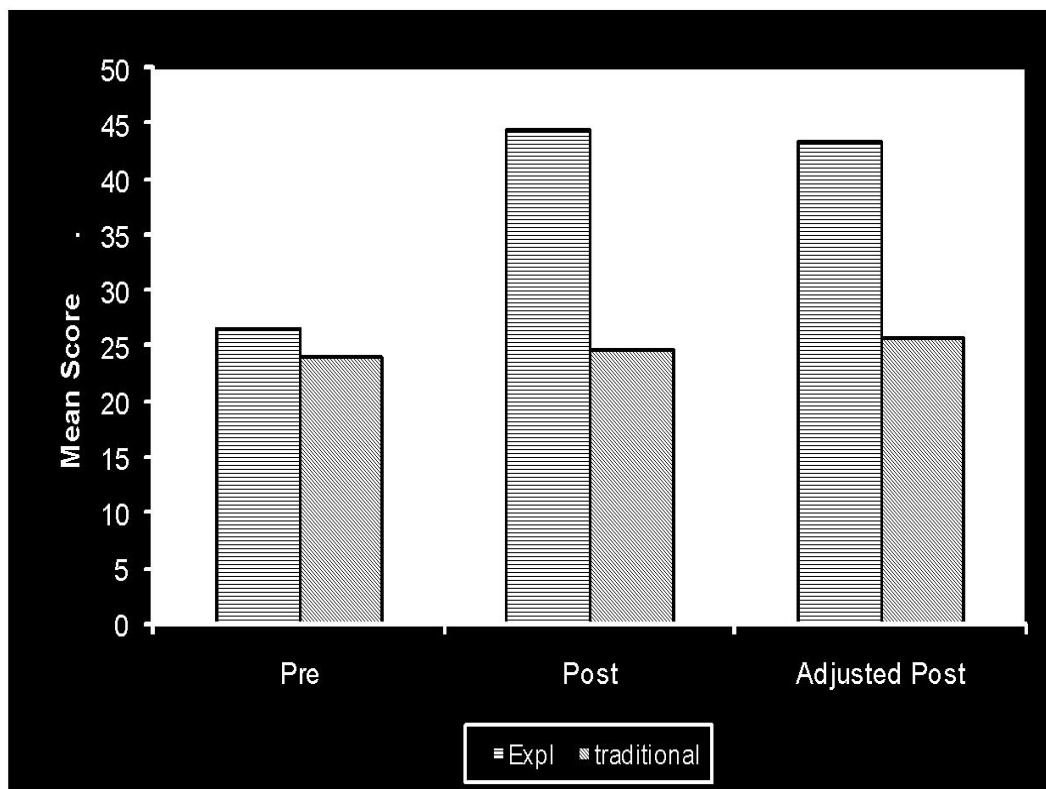
Summary of mean, sum of squares, mean squares and F values of pre, post and adjusted post Linguistic Intelligence test scores in both experimental and control groups.

	Mean		Source	Sum Squares	of d f	Mean Square	F	p	Remark
	Exp l	Tradi tional							
Pre-test (X)	26.59	24.09	Between Groups	185.00	1	185.00	2.580	0.111	NS
			Within Groups	8389.82	117	71.71			
			Total	8574.82	118				
Post-test (Y)	44.40	24.73	Between Groups	11464.51	1	11464.51	149.403	0.000	Sig. at 0.01 level
			Within Groups	8978.06	117	76.74			
			Total	20442.57	118				
Adjusted Post-test (Y.X)	43.45	25.68	Between Groups	9151.11	1	9151.11	258.363	0.000	Sig. at 0.01 level
			Within Groups	4108.68	116	35.42			
			Total	13259.79					

From the table 4.4, it is clear that $F_{y.x}$ value is 258.363, $p < 0.01$ and is significant at 0.01 level. Therefore the hypothesis “there exists no significant difference in the mean adjusted scores of linguistic intelligence in English of class nine students of experimental and control groups”, is rejected. It can be said that adjusted post test means scores of linguistic intelligence of class nine students in the experimental group and control group differs significantly. Students who learned through language games, developed more linguistic intelligence than the students who learned through traditional methods.

Figure 4.4

Unadjusted and adjusted mean scores of pre and post linguistic intelligence test of experimental and control groups



In order to know the exact groups which differ significantly in the adjusted post mean linguistic intelligence test scores, the data was further analyzed with the help of Post-Hoc test and the results are given in the table below.

Table 4.5

Summary of adjusted means, SD and t values adjusted post linguistic intelligence test scores of experimental and control groups.

Adjusted	mean	SD _(yx)	SE _{D(yx)}	t	p	Level
Experimental	43.45	5.95	1.06	16.75	0.00	0.01
Traditional	25.68				0	

A Post-Hoc test was applied for pairwise comparison of the adjusted means of linguistic intelligence of experimental and control groups. Since t value is 16.75, $p < 0.01$, and it is significant at 0.01 level. So it can be concluded that language games are significantly more effective than the conventional method in enhancing linguistic intelligence of class nine students.

Tenability of Hypotheses

- 1) The first null hypothesis, there exists no significant difference in the mean pretest scores of Linguistic Intelligence in English of class nine students in the experimental and control groups, is accepted.

- 2) The second null hypothesis, there exists no significant difference in the mean post test scores of Linguistic Intelligence of class nine students in the experimental and control groups, is rejected.
- 3) The third null hypothesis, there exists no significant difference in the mean pretest and post test scores of Linguistic Intelligence of class nine students in the experimental groups, is rejected.
- 4) The fourth null hypothesis, there exists no significant difference in the mean adjusted posttest scores of Linguistic Intelligence of class nine students in the experimental and control groups when pretest is taken as a covariate, is rejected.

CHAPTER V

FINDINGS, IMPLICATIONS AND CONCLUSION

- ❖ STUDY IN RETROSPECT
- ❖ OBJECTIVES OF THE STUDY
- ❖ HYPOTHESES FRAMED FOR THE STUDY
- ❖ METHODOLOGY IN BRIEF
- ❖ FINDINGS OF THE STUDY
- ❖ CONCLUSION
- ❖ EDUCATIONAL IMPLICATIONS OF THE STUDY
- ❖ SUGGESTIONS FOR FURTHER RESEARCH

Chapter V

FINDINGS AND CONCLUSIONS

5.1 STUDY OF THE RETROSPECT

The development of verbal and linguistic intelligence is very important in the formation of human life from childhood. In the age of globalization listening and communication abilities have become a necessity to succeed in social, professional, and work situations (Thomas et al., 2024). Language games are considered as an interesting way for learning the language or something about the language. Al-karawi (2020) revealed that learning a new language through games is the best way to learn. Using games for educational purposes in a classroom setting is accepted as fruitful and beneficial. The need for communication during games, and the informal setting of games provide space for the students and encourages them to be unafraid to talk, which practices their fluency, a valuable communication skill (Raheem et al., 2020). The development of language games in English has emerged as a valuable approach to enhancing linguistic intelligence among secondary school students, offering a range of benefits that can significantly impact language learning outcomes. By incorporating games like word puzzles, role-playing, and board games into the curriculum, educators can create an engaging and interactive learning environment that fosters vocabulary acquisition, improves grammar and sentence construction, and develops speaking and listening skills. Research has consistently shown

that language games can increase motivation and confidence among learners encouraging active participation and collaboration. Moreover, games can cater to diverse learning styles and needs, providing opportunities for students to practice and reinforce their language skills in a low-stakes and enjoyable setting. As a result, language games can play a vital role in promoting linguistic intelligence and language proficiency among secondary school students, setting them up for success in their academic and professional pursuits.

5.2 OBJECTIVES OF THE STUDY

1. To prepare and validate instructional design based on language games in English for class nine students.
2. To compare the mean pretest scores of Linguistic Intelligence in English of class nine students of experimental and control groups.
3. To compare the mean post test scores of Linguistic Intelligence in English of class nine students of experimental and control groups.
4. To test the effectiveness of instructional design based on language games in enhancing Linguistic Intelligence in English of class nine students of an experimental group
5. To find out the significant difference in the mean adjusted posttest scores of Linguistic Intelligence in English of class nine students of experimental and control groups when pretest is taken as a covariate.

5.3 HYPOTHESES FRAMED FOR THE STUDY

1. There exists significant difference in the mean pretest scores of Linguistic Intelligence in English of class nine students in the experimental and control groups.
2. There exists significant difference in the mean post test scores of Linguistic Intelligence in English of class nine students in the experimental and control groups.
3. There exists significant difference in the mean pretest and post test scores of Linguistic Intelligence in English of class nine students in the experimental groups.
4. There exists significant difference in the mean adjusted posttest scores of Linguistic Intelligence in English of class nine students in the experimental and control groups when pretest is taken as a covariate.

5.4 METHODOLOGY IN BRIEF

Method Used

Experimental method adopted for conducting the study. Pretest posttest non- equivalent group design was used.

Population

The population of the study consists of class nine students who are studying in various schools of Kanniyakumari district in Tamil Nadu following the State Board syllabus during the academic year 2024 - 2025.

Sample

The present study was conducted on a sample of class nine students. The size of the sample is 119. Two intact groups will be selected in which the Experimental group consists of 63 samples and the Control group consists of 56 samples.

Sampling Technique

Simple random sampling was used in this study.

Tools and Techniques used

- Language games package for enhancing linguistic intelligence focusing on language skills, grammar, spelling.
- Linguistic intelligence test in English.

Variables

Independent Variable - Language Games

Dependent Variable - Linguistic Intelligence

Statistical Technique Employed

In the present study the following statistical techniques like independent t test for large sample, paired t test for small sample and ANCOVA (Analysis of Covariance) are used.

5.5 FINDINGS OF THE STUDY

1. There exists no significant difference in the mean pretest scores of Linguistic Intelligence of class nine students in the experimental and control groups. The finding is supported by the following result ($t = 1.606, p > 0.01$) which is not significant at 0.01 level.

2. There exists a significant difference in the mean post test scores of Linguistic Intelligence of class nine students in the experimental and control groups. The finding is supported by the following result ($t = 12.223$, $p < 0.01$) which is significant at 0.01 level.
3. There exists a significant difference in the mean pretest and post test scores of Linguistic Intelligence of class nine students in the experimental groups. The finding is supported by the following result ($t = 19.80$, $p < 0.01$) which is significant at 0.01 level.
4. There exists a significant difference in the mean adjusted posttest scores of Linguistic Intelligence of class nine students in the experimental and control groups when pretest is taken as a covariate. The finding is supported by the following result ($F = 258.363$, $p < 0.01$) which is significant at 0.01 level.

5.6 CONCLUSION

The study concluded that the students of class nine who have learned English through Language games have better Linguistic Intelligence than the students who have learned through traditional methods. The study also revealed that the students of two groups have more or less the same level of linguistic intelligence during pre - test while in post test the students of the experimental group have comparatively higher vocabulary acquisition than the control group. The application of language games to the current syllabus will not be more effective, so that there should be a need for curriculum transmission and also the availability of teaching learning materials need to

be ensured. Thus the study concluded that the application of language games can provide a successful way to enhance linguistic intelligence of the students which creates better opportunities for their future endeavours.

5.7 EDUCATIONAL IMPLICATIONS OF THE STUDY

The application of Language Games was far superior to the traditional method in improving Linguistic Intelligence in English among the students. The following educational implications suggested based on the findings of the study.

1. The Language Games are more effective than the traditional method in improving Linguistic Intelligence in English. Therefore, Language Games could be introduced in all schools to teach English and all other subjects.
2. Intensive training could be given to school teachers to develop lesson transcripts and to use Language Games effectively in the classroom.
3. Teacher Training institutions can incorporate the techniques of using language games in their training procedure and curriculum and thereby, they would be able to apply it in the future for the betterment of the students.
4. Language Games could make learning a satisfying and enjoyable experience for the students and for the teachers who could give the opportunity for the students to choose the learning styles.
5. Teachers could recognize each student's preferred learning style and support it by implementing the language games.

6. Language Games make learning more effective and meaningful by providing concrete experience and active experimentation.
7. Language games can encourage students' curiosity about learning at the stage of reflective observation, so the learners are able to remember the learned concepts for life long.
8. Language games can make learning English more enjoyable and interactive, increasing students' engagement and motivation to learn.
9. Language game designs can focus on vocabulary building and grammar practice, helping students to develop a stronger foundation in English language skills.
10. Language game designs were found to be effective in developing language proficiency and linguistic intelligence in English. Hence it could be made an integral part of the curriculum in schools and teachers should be encouraged to employ this approach appropriately in secondary school students.

5.8 SUGGESTIONS FOR FUTURE RESEARCH

The possible areas of research are suggested below.

1. The present study was conducted on a small sample taken from a school affiliated with the state board. Similar study can be conducted for the students of other boards like CBSE and ICSE.
2. The effectiveness of language games may be assessed in terms of other variables like problem solving, critical thinking, and creative writing.

3. A study on awareness of Language games among Prospective teachers can be done for future research.
4. Research can be conducted to examine the effect of gamification on the students having different demographic attributes.
5. Communication skill and language proficiency can be experimented for primary and higher secondary level.

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APPENDICES

APPENDICES

Appendix A: General Data Sheet

Appendix B: Draft form of Linguistic Intelligence Test

Appendix C: Scoring Key for draft test

Appendix D: General Data Sheet

Appendix E: Final form of Linguistic Intelligence Test

Appendix F: Scoring key for final test

Appendix G: Lesson Transcripts based on Language Games

Appendix H: Screenshots of Language Games User Interface

Appendix I: Pictures of Using Language Games Package

Appendix J: Published Article

Appendix A

N.V.K.S.D COLLEGE OF EDUCATION (AUTONOMOUS) ATTOOR
GENERAL SHEET

2024 - 2025

Dear students

Your participation is indispensable for my dissertation entitled
'Development of Language Games in English for enhancing Linguistic
Intelligence among Secondary School Students'. Some of your personal details
are needed for my research. Your details will be kept confidential and used for
research purposes only.

Thank you

Yours faithfully,

Adhiti S H

M.Ed Student

PERSONAL INFORMATION

Name of the student	:	
Age	:	
Gender	:	Male / female
Locale	:	Rural / Urban
Nature of School	:	Boys / Girls / co - aided
Type of Management	:	Government / Private / Aided
Syllabus	:	State Board / CBSE

Appendix B

**N.V.K.S.D. COLLEGE OF EDUCATION, (AUTONOMOUS) RE-
ACCREDITED BY NAAC WITH 'A++' GRADE
(Affiliated to Tamil Nadu Teachers Education University) ATTOOR,
KANNIYAKUMARI DISTRICT.**

Linguistic Intelligence Test (Draft Form)

**Prepared by Adhiti S.H. and Dr. V. S. Pavithra Kumar
(2023-2025)**

Instructions

The given is the test to check the Linguistic Intelligence. Read the instructions for every item and write the appropriate answer in the response sheet. Please answer all the questions.

Time: 45 minute**Total Marks: 100**

I. Three of the words will be in the same classification, the remaining one will not be. Choose the word that does NOT belong in the same classification.

(1x10=10)

1. Which word does NOT belong with the others?

1. Integrate
2. Incorporate
3. Separate
4. Assimilate

2. Which word does NOT belong with the others?

1. Abstruse
2. Superficial
3. Esoteric
4. Profound

3. Which word does NOT belong with the others?

1. Ambivalent
2. Decided
3. Unsure
4. Uncertain

4. Which word does NOT belong with the others?

1. Fallacious
2. Unreasonable
3. Logical
4. Misleading

5. Which word does NOT belong with the others?

1. Discourage
2. Instigate
3. Provoke
4. Promote

6. Which word does NOT belong with the others?

1. Palliate
2. Aggravate

3. Justify
 4. Explain
7. Which word does NOT belong with the others?
1. Utilitarian
 2. Useful
 3. Beneficial
 4. Unsuitable
8. Which word does NOT belong with the others?
1. Surreptitious
 2. Clandestine
 3. Covert
 4. Public
9. Which word does NOT belong with the others?
1. Barren
 2. Rife
 3. Crowded
 4. Abundant
10. Which word does NOT belong with the others?
1. Plenitude
 2. Loads
 3. Ton
 4. Handful

II. In each of the following questions find out the alternative which will replace the question mark. (1x10=10)

11. Cup : Lip :: Bird : ?

- a. Bush b. Grass c. Forest d. Beak

12. Flow : River :: Stagnant : ?

- a. Rain b. Stream c. Pool d. Canal

13. Paw : Cat :: Hoof : ?

- a. Lamb b. Elephant c. Lion d. Horse

14. Ornithologist : Bird :: Archaeologist : ?

- a. Islands b. Mediators c. Archaeology d. Aquatic

15. Reason : SFBTPO :: Think : ?

- a. SGHMJ b. UIJOL c. UHNKI d. UJKPM

16. Nation : ANTINO :: Hungry : ?

- a. HNUGRY b. UHNGYR c. YRNGUH d. UNHGYR

17. Architect : Building :: Sculptor : ?

- a. Museum b. Stone c. Chisel d. Statue

18. Melt : Liquid :: Freeze : ?

- a. Ice b. Condense c. Solid d. Force

19. Tree : Forest :: Grass : ?

- a. Lawn b. Garden c. Park d. Field

20. Peace : Chaos :: Creation : ?

- a. Build b. Construction c. Destruction d. Manufacture

III. In each of the following questions two statements are given and these statements are followed by two conclusions numbered (1) and (2). Read the conclusions and then decide which of the given conclusions logically follows from the two given statements. (1x10=10)

21. Statements: Some actors are singers. All the singers are dancers.

Conclusions:

1. Some actors are dancers.
 2. No singer is an actor.
- a. Only (1) conclusion follows b. Only (2) conclusion follows
- c. Either (1) or (2) follows d. Neither (1) nor (2) follows
- e. Both (1) and (2) follows

22. Statements: All the harmoniums are instruments. All the instrument are flutes.

Conclusions:

1. All the flutes are instruments.
 2. All the harmoniums are flutes.
- a. Only (1) conclusion follows b. Only (2) conclusion follows
- c. Either (1) or (2) follows d. Neither (1) nor (2) follows
- e. Both (1) and (2) follow

23. Statements: Some mangoes are yellow. Some tixo are mangoes.

Conclusions:

1. Some mangoes are green.

2. Tixo is yellow.

- | | |
|--------------------------------|--------------------------------|
| a. Only (1) conclusion follows | b. Only (2) conclusion follows |
| c. Either (1) or (2) follows | d. Neither (1) nor (2) follows |
| e. Both (1) and (2) follow | |

24. **Statements:** Some ants are parrots. All the parrots are apples.

Conclusions:

- | | |
|--------------------------------|--------------------------------|
| 1. All the apples are parrots. | |
| 2. Some ants are apples. | |
| a. Only (1) conclusion follows | b. Only (2) conclusion follows |
| c. Either (1) or (2) follows | d. Neither (1) nor (2) follows |
| e. Both (1) and (2) follow | |

25. **Statements:** Some papers are pens. All the pencils are pens.

Conclusions:

- | | |
|--------------------------------|--------------------------------|
| 1. Some pens are pencils. | |
| 2. Some pens are papers. | |
| a. Only (1) conclusion follows | b. Only (2) conclusion follows |
| c. Either (1) or (2) follows | d. Neither (1) nor (2) follows |
| e. Both (1) and (2) follow | |

26. **Statements:** All the windows are doors. No door is a wall.

Conclusions:

- | |
|----------------------------|
| 1. Some windows are walls. |
| 2. No wall is a door. |

- a. Only (1) conclusion follows
- b. Only (2) conclusion follows
- c. Either (1) or (2) follows
- d. Neither (1) nor (2) follows
- e. Both (1) and (2) follows

27. **Statements:** All cups are books. All books are shirts.

Conclusions:

- 1. Some cups are not shirts.
- 2. Some shirts are cups

- a. Only (1) conclusion follows
- b. Only (2) conclusion follows
- c. Either (1) or (2) follows
- d. Neither (1) nor (2) follows
- e. Both (1) and (2) follow

28. **Statements:** Some cows are crows. Some crows are elephants.

Conclusions:

- 1. Some cows are elephants.
- 2. All crows are elephants.

- a. Only (1) conclusion follows
- b. Only (2) conclusion follows
- c. Either (1) or (2) follows
- d. Neither (1) nor (2) follows
- e. Both (1) and (2) follow

29. **Statements:** All the pencils are pens. All the pens are inks.

Conclusions:

- 1. All the pencils are inks.
- 2. Some inks are pencils.

- a. Only (1) conclusion follows
- b. Only (2) conclusion follows
- c. Either (1) or (2) follows
- d. Neither (1) nor (2) follows
- e. Both (1) and (2) follow

30. **Statements:** Some dogs are bats. Some bats are cats.

Conclusions:

- 1. Some dogs are cats.
- 2. Some cats are dogs.

- a. Only (1) conclusion follows
- b. Only (2) conclusion follows
- c. Either (1) or (2) follows
- d. Neither (1) nor (2) follows
- e. Both (1) and (2) follow

IV. Choose the following sentences according to the instruction given after each. **(1x10=10)**

31. Priya is a brave girl; the other girls are not so brave in the class. (Use: braver)

- a) Priya is braver than any other girls in the class.
- b) Priya is braver to any other girls in the class.
- c) The other girls are Braver than Priya.
- d) Priya is braver while the other girls are not so brave.

32. This is the last time I speak to you. (Begin: Never)

- a) Never will I speak to you the last time.
- b) Never will I speak to you after this.

c) Never will I speak to you now on.

d) Never will I speak to you again.

33. Nobody will deny that she is able. (Begin: Everyone)

a) Everyone will admit that she is able.

b) Everyone will accept that she is able.

c) Everyone will not deny that she is able.

d) Everyone will deny that she is able.

34. Our plan cannot be implemented immediately.(Use:effect)

a) Our plan cannot be effected immediately.

b) Our plan cannot effectively implemented immediately .

c) Our plan cannot be put into effect immediately.

d) Our plan effect cannot be implemented immediately.

35. By the time I arrived, they had already eaten.(Use:When)

a) When I arrived, they had already eaten.

b) When I arrived, they ate already.

c) Already they had eaten when I arrived.

d) They had eaten already, when I arrived.

36. You never know where your luck lies, do you.(Begin: One)

a) One never knows where your luck lies.

- b) One never knows where's one luck lies.
- c) One never knows where one's luck lies.
- d) One never know where your luck lies.

37. If he apologises, he will be pardoned. (Use: Unless)

- a) Unless he doesn't apologise he will not be pardoned.
- b) Unless he doesn't apologise he will not be at pardon.
- c) Unless he apologises he will not be pardoned.
- d) Unless he apologises he will be pardoned.

38. Delhi is one of the most crowded cities in India. (Use: More crowded)

- a) Other cities in India are more crowded than Delhi.
- b) Other cities in India are not more crowded than Delhi.
- c) Delhi is more crowded than most other cities in India.
- d) Delhi is not more crowded than most other cities in India.

39. A bus collided with a car. (Begin: There was a collision)

- a) There was a collision with a bus and car.
- b) There was a collision of a bus and a car.
- c) There was a collision between a bus and a car.
- d) There was a collision from a bus with a car.

40. He's getting so absent-minded; he can't go on working much longer.

(End:...to go on working much longer)

- a) He is getting absent-minded to go on working much longer.
- b) He is too absent-minded to go on working much longer
- c) He has got absent-minded to go on working much longer.
- d) He is absent-minded to work much longer.

V. In the questions below, the first and the last parts of the sentence are numbered 1 and 6. The rest of the sentence is split into four parts and named P,Q,R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct.

(1x10=10)

41.

1 : It was obvious

P :made by him

Q : submitted at the meeting

R :from the comments

S : on the draft proposals

6 : that he was not satisfied with them.

The Proper sequence should be:

- a. QRSP
- b. SQR P
- c. RPSQ
- d. PSRQ

42.

1 : Today however, Giant Pandas

P : in some areas.

Q : and a few

R : of the Tibetan Plateau

S : can only be found

6 : mountain regions.

The Proper sequence should be:

a. PQRS

b. SRPQ

c.RPSQ

d. SPRQ

43.

1 : Even though plants and animals

P : changes in nature

Q : if their occurrence is natural,

R : can adapt themselves to

S : any drastic change can hamper

6 : them extensively.

The Proper sequence should be:

a. RPQS

b. PSQR

c. SQRP

d.RPSQ

44.

1 : Rhinoceroses mature

P : and have a

Q : lifespan of

R : five or six,

S : at the age of

6 : up to 50 years

The Proper sequence should be:

- a. SRQP b. SRPQ c. SQRP d. QPSR

45.

1 : The company has invested around Rs. 900 crore

P : on the 200 acre plant,

Q : a full range of tyres,

R : including truck tyres and radials

S : which will manufacture

6 : to cater both domestic and export requirements.

The Proper sequence should be:

- a. PQRS b.PQSR c. QPSR d. PSQR

46.

1 : During the science

P : lab, the students

Q : was gooey enough

R : to stick to the

S : created a glutinous mixture that

6 : walls when thrown

The Proper sequence should be:

a. RPSQ

b. PSQR

c. SPRQ

d. RQSP

47.

1 : If someone is trying

P : conflict, sometimes the

Q : to goad you into a verbal

R : is simply walk away

S : best thing you can do

6 : from that person

The Proper sequence should be:

a. RPSQ

b. QSPR

c. QPSR

d. RSPQ

48.

1 : The only memorable part is

P : three kilometers later shifting from

Q : going over the unmanned and

R : small railway crossing at Uchipuli, and

S : a super-smooth drive on the quaint main road

6 : onto a narrow pebble track at Pirappan Valasai.

The Proper sequence should be:

a. SPQR

b. QRSP

c. QRPS

d. PSQR

49.

1 : I am well aware

P : the controlling motive in the

Q : of the fact that the mere

R : except in very rare cases,

S : accumulation of wealth is not,

6 : lives of the wealthy.

The Proper sequence should be:

a. PQRS

b. QSRP

c. SPQR

d. PQSR

50.

1 : Smoke oozed up between the planks.

P : Passengers were told to be ready to quite the ship

Q : the rising gale fanned the smoldering fire

R : everyone now knew there was fire on board

S : flames broke out here and there

6 : most people bore the shock bravely

The Proper sequence should be:

a. SRQP

b. QPSR

c. RSPQ

d. QSRP

VI. Read the sentences carefully and answer the following.

(1x10=10)

51. Which word in English gives the answer to this riddle: Rich people need it, poor people have it and if you eat it you'll die.

52. What is the only word in the English language that ends in mt?

53. Which word starts with M, ends with X, and has a never ending number of letters?

54. Which five letter word becomes shorter when two letters are added to it?

55. What begins with T, finishes with T and has T in it?

56. What is the end of everything?

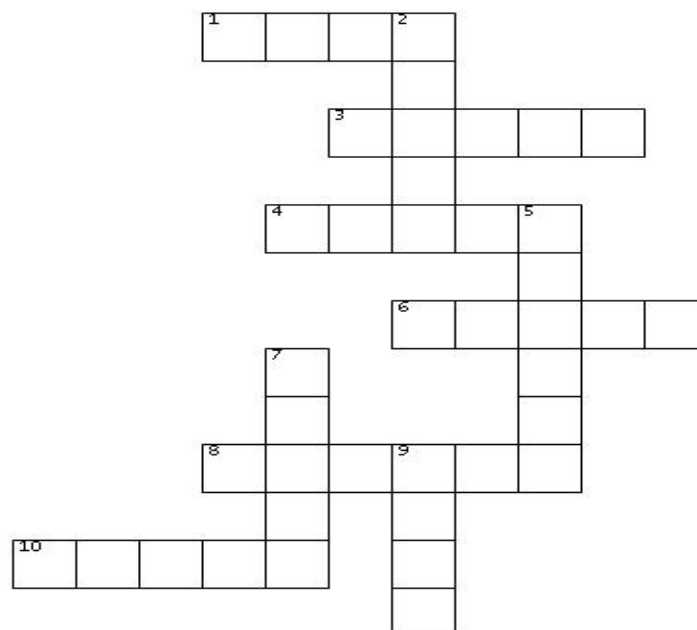
57. What comes once in a minute, twice in a moment but not once in a thousand years?

58. Which letter is a body of water?

59. What four-letter word can be written forward, backward or upside down, and can still be read from left to right?

60. What word, describing a job title, has three consecutive double letters?

VII. Complete the crossword puzzle by changing the verbs given below to an irregular past tense verb. (10x3=30)

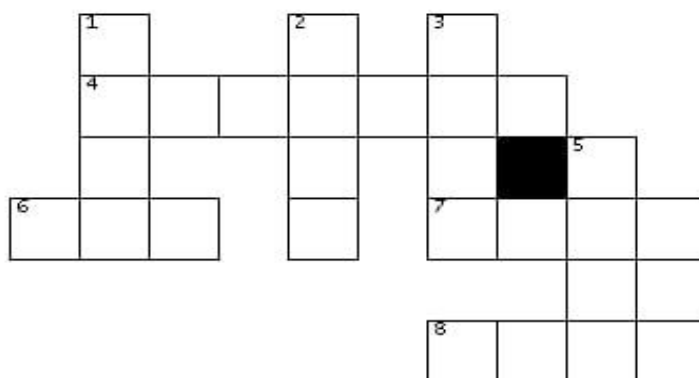


A)

	ACROSS
61.	1. BLOW
62.	3. FIND
63.	4. SLEEP
64.	6. DRINK
65.	8. BUY
66.	10. DRIVE
	DOWN
67.	2. WRITE
68.	5. TEACH
69.	7. FREEZE
70.	9. GIVE

79.	6. KEEP
80.	7. LEAD

C)



	ACROSS
81.	4. ENJOY
82.	6. EAT
83.	7. TAKE
84.	8. DRAW
85.	10. DO
	DOWN

86.	1. LEAVE
87.	2. WEAR
88.	3. LEND
89.	5. RIDE
90.	9. RUN

VII1. Identify the figure of speech from the highlighted lines of the given poem. Choose the correct option: (1x10=10)

Poem 1: "Moonlit Night"

The moon's silver sickle shines so bright,

Illuminating paths that wind through endless night.

The stars, a twinkling tapestry,

Unraveling secrets of the cosmic sea.

In this nocturnal world, shadows dance with glee.

Identify the figure of speech in the following lines, choosing from the options given below:

91) The moon's silver sickle shines so bright,

a) Metaphor b) Hyperbole c) Allusion d) Simile

92) Illuminating paths that wind through endless night.

- a) Hyperbole b) Metaphor c) Simile d) Allusion

93) The stars, a twinkling tapestry,

- a) Metaphor b) Simile c) Allusion d) Personification

94). Unraveling secrets of the cosmic sea.

- a) Personification b) simile c) Allusion d) Metaphor

95) In this nocturnal world, shadows dance with glee.

- a) Metaphor b) Allusion c) Personification d) Alliteration

Poem 2: "Ocean's Fury"

The tempest's wild roar shakes the shore,

As waves, like liquid mountains, rise once more.

The ocean's wrath unleashes torrents deep,

A maelstrom that the winds' fierce passion keep.

In this turmoil, nature's power we reap.

Identify the figure of speech in the following lines, choosing from the options given below:

96). The tempest's wild roar shakes the shore,

- a) Onomatopoeia b) simile c) Allusion d) Hyperbole

97) As waves, like liquid mountains, rise once more.

- a) Hyperbole b) Metaphor c) Simile d) Pun

98) The ocean's wrath unleashes torrents deep,

- a) Hyperbole b) Metaphor c) Simile d) Paradox

99) A maelstrom that the winds' fierce passion keep.

- a) Onomatopoeia b) simile c) Metonymy d) Irony

100) In this turmoil, nature's power we reap.

- a) Personification b) simile c) Allusion d) Onomatopoeia

Appendix C**SCORING KEY**

I. Three of the words will be in the same classification, the remaining one will not be. Choose the word that does NOT belong in the same classification.

1. Separate
2. Superficial
3. Decided
4. Logical
5. Discourage
6. Aggravate
7. Unsuitable
8. Public
9. Barren
10. Handful

II. In each of the following questions find out the alternative which will replace the question mark.

11. Beak
12. Pool
13. Archaeology
14. Horse
15. UIJOL
16. UHNGYR

17. Statue

18. Solid

19. Lawn

20. Destruction

III. In each of the following questions two statements are given and these statements are followed by two conclusions numbered (1) and (2). Read the conclusions and then decide which of the given conclusions logically follows from the two given statements.

21. Only (1) conclusion follows

22. Only (2) conclusion follows

23. Neither (1) nor (2) follows

24. Only (2) conclusion follows

25. Both (1) and (2) follow

26. Only (2) conclusion follows

27. Only (2) conclusion follows

28. Neither (1) nor (2) follows

29. Both (1) and (2) follow

30. Neither (1) nor (2) follows

IV. Choose the following sentences according to the instruction given after each.

- 31. Priya is braver than any other girls in the class
- 32. Never will I speak to you after this.
- 33. Everyone will accept that she is able.
- 34. Our plan cannot be effected immediately.
- 35. When I arrived, they had already eaten.
- 36. One never knows where one's luck lies.
- 37. Unless he apologises he will not be pardoned.
- 38. Delhi is more crowded than most other cities in India.
- 39. There was a collision between a bus and a car.
- 40. He is too absent-minded to go on working much longer.

V. In the questions below, the first and the last parts of the sentence are numbered 1 and 6. The rest of the sentence is split into four parts and named P,Q,R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct.

- 41. RPSQ
- 42. SPRQ
- 43. RPQS
- 44. SRPQ
- 45. PSQR
- 46. PSQR
- 47. QPSR

48. QRPS

49. QSRP

50. SRQP

VI. Read the sentences carefully and answer the following.

51. Nothing

52. Dreamt

53. Mailbox

54. Short

55. Teapot

56. G

57.m

58.c

59. Noon

60. Bookkeeper

VII. Complete the crossword puzzle by changing the verbs given below to an irregular past tense verb.

A)

	ACROSS
61.	1. BLEW
62.	3. FOUND

63.	4. SLEPT
64.	6. DRUNK
65.	8. BOUGHT
66.	10. DROVE
	DOWN
67.	1. WROTE
68.	5. TAUGHT
69.	7. FROZE
70.	9. GAVE

B)

	ACROSS
71.	2. SWAM
72.	5. AWOKE
73.	6. KNELT
74.	8. TORE

	DOWN
75.	1. RANG
76.	2. SPOKE
77.	3. DREAMT
78.	4. AROSE
79.	6. KEPT
80.	7. LED

C)

	ACROSS
81.	4. ENJOYED
82.	6. ATE
83.	7. TOOK
84.	8. DREW
85.	10. DID

	DOWN
86.	1. LEFT
87.	2. WORE
88.	3. LENT
89.	5. RODE
90.	9. RAN

VIII. Identify the figure of speech from the highlighted lines of the given poem. Choose the correct option:

91. Metaphor

92. Hyperbole

93. Simile

94. Allusion

95. Personification

96. Onomatopoeia

97. Simile

98. Hyperbole

99. Metonymy

100. Allusion

Appendix D**N.V.K.S.D COLLEGE OF EDUCATION (AUTONOMOUS) ATTOOR****GENERAL SHEET****2024 - 2025**

Dear students

Your participation is indispensable for my dissertation entitled 'Development of Language Games in English for enhancing Linguistic Intelligence among Secondary School Students'. Some of your personal details are needed for my research. Your details will be kept confidential and used for research purposes only.

Thank you

Yours faithfully,

Adhiti S H

M.Ed Student

PERSONAL INFORMATION

Name of the student	:	
Age	:	
Gender	:	Male / female
Locale	:	Rural / Urban
Nature of School	:	Boys / Girls / co - aided
Type of Management	:	Government / Private / Aided
Syllabus	:	State Board / CBSE

II. In each of the following questions two statements are given and these statements are followed by two conclusions numbered (1) and (2). Read the conclusions and then decide which of the given conclusions logically follows from the two given statements.

(1x3=3)

4. Statements: Some actors are singers. All the singers are dancers.

Conclusions:

1. Some actors are dancers.
 2. No singer is an actor.
- a. Only (1) conclusion follows b. Only (2) conclusion follows
c. Neither (1) nor (2) follows d. Both (1) and (2) follow

5. Statements: All the harmoniums are instruments. All the instruments are flutes.

Conclusions:

1. All the flutes are instruments.
 2. All the harmoniums are flutes.
- a. Only (1) conclusion follows b. Only (2) conclusion follows
c. Neither (1) nor (2) follows d. Both (1) and (2) follow

6. Statements: Some mangoes are yellow. Some tixo are mangoes.

Conclusions:

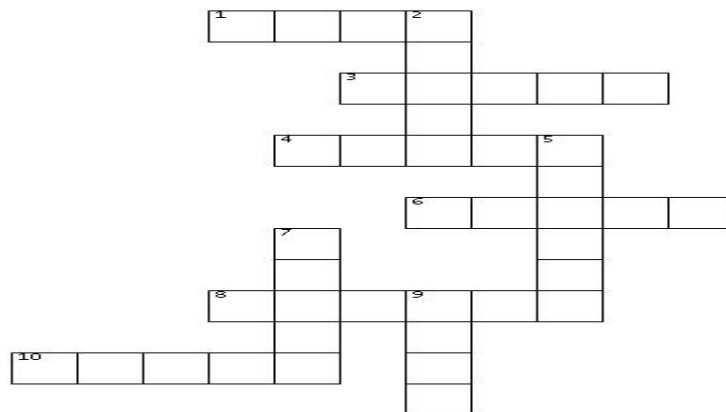
1. Some mangoes are green.
2. Tixo is yellow.

- a. Only (1) conclusion follows b. Only (2) conclusion follows
c. Neither (1) nor (2) follows d. Both (1) and (2) follows

III. Read the sentences carefully and answer the following. (1x4=4)

7. What is the only word in the English language that ends in mt?
8. Which five letter word becomes shorter when two letters are added to it?
9. What comes once in a minute, twice in a moment but not once in a thousand years?
10. Which letter is a body of water

IV. Complete the crossword puzzle by changing the verbs given below to an irregular past tense verb. (10x3=30)

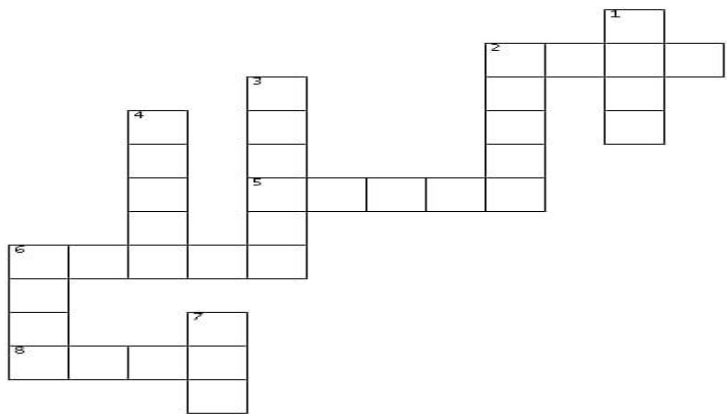


A)

	ACROSS
11.	1. BLOW
12.	3. FIND

13.	4. SLEEP
14.	6. DRINK
15.	8. BUY
16.	10. DRIVE
	DOWN
17.	2. WRITE
18.	5. TEACH
19.	7. FREEZE
20.	9. GIVE

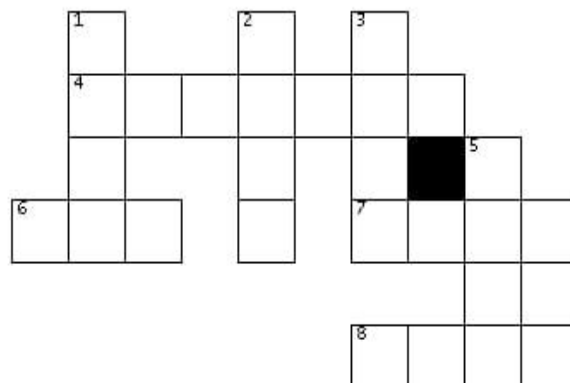
B)



	ACROSS
21.	2. SWIM

22.	5. AWAKE
23.	6. KNEEL
24.	8. TEAR
	DOWN
25.	1. RING
26.	2. SPEAK
27.	3. DREAM
28.	4. ARISE
29.	6. KEEP
30.	7. LEAD

C)



	ACROSS
31.	4. ENJOY
32.	6. EAT
33.	7. TAKE
34.	8. DRAW
35.	10. DO
	DOWN
36.	1. LEAVE
37.	2. WEAR
38.	3. LEND
39.	5. RIDE
40.	9. RUN

V. Identify the figure of speech from the highlighted lines of the given poem. Choose the correct option: (1x10=10)

Poem 1: "Moonlit Night"

The moon's silver sickle shines so bright,

Illuminating paths that wind through endless night.

The stars, a twinkling tapestry,

Unraveling secrets of the cosmic sea.

In this nocturnal world, shadows dance with glee.

Identify the figure of speech in the following lines, choosing from the options given below:

41) The moon's silver sickle shines so bright,

- a) Metaphor b) Hyperbole c) Allusion d) Simile

42) Illuminating paths that wind through endless nights.

- a) Hyperbole b) Metaphor c) Simile d) Allusion

43) The stars, a twinkling tapestry,

- a) Metaphor b) Simile c) Allusion d) Personification

44). Unraveling secrets of the cosmic sea.

- a) Personification b) simile c) Allusion d) Metaphor

45) In this nocturnal world, shadows dance with glee.

- a) Metaphor b) Allusion c) Personification d) Alliteration

Poem 2: "Ocean's Fury"

The tempest's wild roar shakes the shore,

As waves, like liquid mountains, rise once more.

The ocean's wrath unleashes torrents deep,

A maelstrom that the winds' fierce passion keep.

In this turmoil, nature's power we reap.

Identify the figure of speech in the following lines, choosing from the options given below:

46). The tempest's wild roar shakes the shore,

- a) Onomatopoeia b) simile c) Allusion d) Hyperbole

47) As waves, like liquid mountains, rise once more.

- a) Hyperbole b) Metaphor c) Simile d) Pun

48) The ocean's wrath unleashes torrents deep,

- a) Hyperbole b) Metaphor c) Simile d) Paradox

49) A maelstrom that the winds' fierce passion keep.

- a) Onomatopoeia b) simile c) Metonymy d) Irony

50) In this turmoil, nature's power we reap.

- a) Personification b) simile c) Allusion d) Onomatopoeia

Appendix F**SCORING KEY**

I. In each of the following questions find out the alternative which will replace the question mark.

1. Pool
2. Archaeology
3. Solid

II. In each of the following questions two statements are given and these statements are followed by two conclusions numbered (1) and (2). Read the conclusions and then decide which of the given conclusions logically follows from the two given statements.

4. Only (1) conclusion follows
5. Only (2) conclusion follows
6. Neither (1) nor (2) follows

III. Read the sentences carefully and answer the following.

7. Dreamt
8. Short
9. m
10. c

IV. Complete the crossword puzzle by changing the verbs given below to an irregular past tense verb.

A)

	ACROSS
11.	1. BLEW
12.	3. FOUND
13.	4. SLEPT
14.	6. DRUNK
15.	8. BOUGHT
16.	10. DROVE
	DOWN
17.	2. WROTE
18.	5. TAUGHT
19.	7. FROZE
20.	9. GAVE

B)

	ACROSS
21.	2. SWAM
22.	5. AWOKE
23.	6. KNELT
24.	8. TORE
	DOWN
25.	1. RANG
26.	2. SPOKE
27.	3. DREAMT
28.	4. AROSE
29.	6. KEPT
30.	7. LED

C)

	ACROSS
31.	4. ENJOYED
32.	6. ATE
33.	7. TOOK
34.	8. DREW
35.	10. DID
	DOWN
36.	1. LEFT
37.	2. WORE
38.	3. LENT
39.	5. RODE
40.	9. RAN

V. Identify the figure of speech from the highlighted lines of the given poem. Choose the correct option:

41. Metaphor

42. Hyperbole

43. Simile

44. Allusion

45. Personification

46. Onomatopoeia

47. Simile

48. Hyperbole

49. Metonymy

50. Allusion

Appendix G

Lesson Transcript -1

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : From Zero to Infinity

Number of pupils : 63

Duration : 45 minutes

Date : 21 - 01-2025

Learning Outcomes

The pupil

1. Recall the life and achievements of Srinivasa Ramanujan, an Indian mathematician.
2. Assume the role of intuition and creativity in mathematical discoveries.
3. Define analogy.
4. Infer the knowledge and construct analogy.
5. Find patterns and develop relational thinking.

Game Name : Analogy Adventure

❖ **Objective :** Choose the correct analogy by decoding the context based puzzle.

❖ **Game Play :**

1. Players select one option from multiple choice answers.
2. Fantasy-themed environments unlock with correct answers.

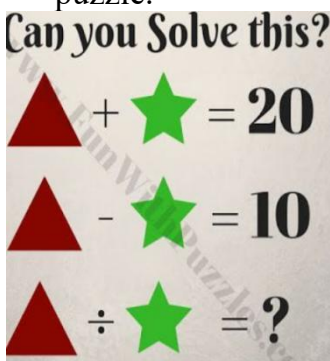
❖ **Scoring** : Points awarded for accuracy; hints reduce point value.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> The teacher creates a rapport with the students and motivates them to solve the puzzle.  <ul style="list-style-type: none"> Teacher asks some motivational questions. <ol style="list-style-type: none"> Did you enjoy solving this ? Was it easy or hard to solve? Do you like Mathematics? Give reasons. Who discovered 	<ul style="list-style-type: none"> Students solve the puzzle. Students answer the questions raised by the teacher. <ol style="list-style-type: none"> Yes, we enjoy solving the puzzle. It was easy to solve. Yes, because it develops logical thinking. Srinivasa Ramanujan discovered infinity in India. Students explain the concept of analogism.

	<p style="text-align: center;">Infinity in India?</p> <ul style="list-style-type: none"> ● Teacher then gives a short introduction about Srinivasa Ramanujan for teaching the chapter 'From Zero to Infinity'. ● Teacher introduces the concept of Analogism and ways to decode analogy. 	
Onboarding Phase (5 min)	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of analogies related to the chapter 'From Zero to Infinity'. ● Numbers :Ramanujan : : Words : ? A) Poet B) Mathematician C) Scientist D) Author 	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the Analogy Adventure game. ● Students answer the question given by the teacher as a poet.

Scaffolding Phase (30 min)	<ul style="list-style-type: none"> ● The teacher executes the game. ● The teacher asks the player to select an analogy by decoding the puzzle. ● For example: Ramanujan's work : Infinity :: Einstein's work : ? A) Relativity B) Gravity C) Space D) Time 	<ul style="list-style-type: none"> ● Teacher encourages the students to select one option from the multiple choice question. ● Students respond to the question with the answer Relativity. ● Fantasy-themed environments unlock with correct answers. ● Students by playing the game recognise and create analogies to understand complex concepts, solve problems.
Endgame (5 min)	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate learning, problem-solving and critical thinking by leveraging analogies.

Assignments

1. Write a reflective essay on the importance of perseverance and determination in overcoming obstacles, inspired by Ramanujan's life story.
2. Create analogies and play in the class.

Lesson Transcript -2

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : Mother's Voice

Number of pupils : 63

Duration : 45 minutes

Date : 25 - 01-2025

Learning Outcomes

The pupil

1. Recall the facts about Chandrayaan - 1.
2. Analyze the theme of the story, which highlights the spirit of discovery and the importance of family bonds.
3. Define syllogism.
4. Infer the knowledge and construct syllogism.
5. Find patterns and develop rational thinking.

Game Name : Logic Ladder

❖ **Objective :** Solve logic-based sentence completion challenges to “climb” higher.

❖ **Game Play :**

1. Players progress through levels by making correct choices.
2. Bonus points for speed and accuracy.

❖ **Scoring** : Streak multiples for consecutive correct answers.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> ● The teacher creates a rapport with the students. ● Teacher asks motivational question. <p>1. “If you are given an opportunity to go on a one-way trip to Mars, will they accept it?”.</p> <ul style="list-style-type: none"> ● Teacher then gives a short introduction about Vasil Berezhnoy. ● Teacher introduces the concept of syllogism and ways to decode syllogism. 	<ul style="list-style-type: none"> ● Students answer the questions raised by the teacher. <p>1. Yes, we will accept it.</p> <ul style="list-style-type: none"> ● Students explain the concept of syllogism..

<p>Onboarding Phase (5 min)</p>	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of syllogism related to the chapter ‘Mother’s Voice’. <p>Statement 1 : All astronauts travel to space.</p> <p>Statement 2 : The narrator's son is an astronaut.</p> <p>Conclusion : The narrator's son travels to space.</p>	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the Logic ladder game. ● Students answer the question given by the teacher as Valid.
<p>Scaffolding Phase (30 min)</p>	<p>The teacher executes the game. The teacher asks the player to select an option by decoding the syllogism. For example:</p> <p>Statement 1 : All mothers love their children.</p> <p>Statement 2 :The narrator is a mother.</p> <p>Conclusion :The narrator hates her child.</p>	<ul style="list-style-type: none"> ● Teacher encourages the students to select one option as valid or invalid. ● Students respond to the question with the answer Invalid. ● Bonus points for speed and accuracy. ● Students by playing the game recognise and create syllogism to understand complex

		concepts, solve problems.
Endgame (5 min)	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate learning, problem-solving and critical thinking by leveraging syllogism.

Assignments

1. Narrate your views on “ What qualities and life skills do you think an explorer like the narrator must possess?
2. Create Syllogism and play in the class.

Lesson Transcript -3

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : A Birthday Letter

Number of pupils : 63

Duration : 45 minutes

Date : 01 - 02-2025

Learning Outcomes

The pupil

1. Recall the life and achievements of Jawaharlal Nehru.
2. Analyse the key points to be noted while writing a letter.
3. Categorize synonyms and antonyms.
4. Infer the qualities exhibited by great leaders.
5. Develops analytical thinking skills.

Game Name : Word Wizard

❖ **Objective :** Solve riddles by guessing words.

❖ **Game Play :**

1. Players guess words to reveal hidden words.
2. Power-ups such as “Reveal Word’ and “Skip Turn” enhance the gameplay.

Scoring : Combo bonuses for consecutive correct word guess.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> ● The teacher creates a rapport with the students. ● Teacher asks some warm up questions. <ol style="list-style-type: none"> 1. Have you ever received a personal letter from your friends or relatives? 2. Have you ever written personal letters to anyone? 3. Teacher then gives a short introduction about Jawaharlal Nehru. 4. Teacher introduces the concept of Riddles and ways to decode those riddles. 	<ul style="list-style-type: none"> ● Students answer the questions raised by the teacher. <ol style="list-style-type: none"> 1. Yes, we have received personal letters. 2. Yes, I have written a personal letter. <ul style="list-style-type: none"> ● Students explain the concept of riddles.

Onboarding Phase (5 min)	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of riddles related to the chapter ‘A Birthday Letter’. ● .I'm a day of joy, a day of cheer, A day when gifts are given,and love is clear. What am I? A) Christmas B) Birthday C) Anniversary D) Holiday 	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the Word Wizard game. ● Students answer the question given by the teacher as Birthday.
Scaffolding Phase (30 min)	<ul style="list-style-type: none"> ● The teacher executes the game. ● The teacher asks the player to select the appropriate word by decoding the riddle. ● For example: . I'm a symbol of love, a token of care,Given by a father, to show he'll always be there.What am I? A) Gift B) Letter C) Phone call D) Visit 	<ul style="list-style-type: none"> ● Teacher encourages the students to select the appropriate word. ● Students respond to the question with the answer Letter. ● Combo bonuses for consecutive correct word guesses. ● Students by playing the game recognise and create riddles to understand

		complex concepts, solve problems.
Endgame (5 min)	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate learning, problem-solving and critical thinking.

Assignments

1. Write a letter to your best friend.
2. Create riddles and play in the class.

Lesson Transcript -4

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : The Comet

Number of pupils : 63

Duration : 45 minutes

Date : 04 - 02-2025

Learning Outcomes

The pupil

1. Recall about the planets and solar system.
2. Analyses the poet's use of literary devices such as metaphor, simile or personification.
3. Develop an appreciation for poetry and its ability to evoke emotions and ideas.
4. Compose poems of their own.
5. Find patterns and develop creative thinking.

Game Name : Poetic Insights

❖ **Objective :** Matches poetic devices to definitions, synonyms or metaphors.

❖ **Game Play :**

1. Players select one option from multiple choice answers.

2. Fun poetic trivia revealed for correct matches.

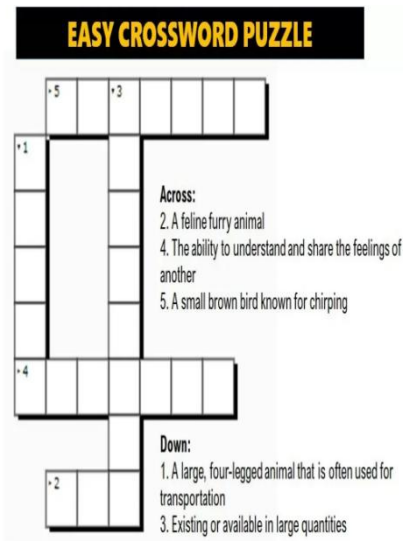
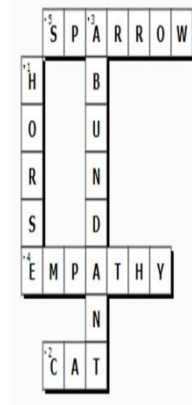
Scoring : Points awarded for accuracy.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> The teacher creates a rapport with the students and motivates them to solve the puzzle. 	<ul style="list-style-type: none"> Students solve the puzzle.  <ul style="list-style-type: none"> Students explain the concept of poetic insights.

	<ul style="list-style-type: none"> ● Teacher then gives a short introduction about Norman Littleford by teaching the poem 'The Comet'. ● Teacher introduces the concept of poetic insight and ways to decode the game. 	
Onboarding Phase (5 min)	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of poetic insights related to the chapter 'The Comet'. ● Which poetic device compares the comet's tail to a "golden ribbon"? A) Metaphor B) Simile C) Personification D) Hyperbole 	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the poetic insight game. ● Students answer the question given by the teacher as a metaphor.
Scaffolding Phase (30 min)	<ul style="list-style-type: none"> ● The teacher executes the game. ● The teacher asks the player to select a poetic device which suits the best.. ● For example:What poetic device is used to give the comet human-like qualities in the line "It streaks across the heavens"? ● A) Personification ● B) Metaphor ● C) Simile ● D) Imagery 	<ul style="list-style-type: none"> ● Teacher encourages the students to select one option from the multiple choice question. ● Students respond to the question with the answer Personification ● Fun poetic trivia revealed for correct matches. ● Students by

		playing the game recognise and understand complex concepts, poetic devices.
Endgame (5 min)	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate learning, problem-solving and critical thinking.

Assignments

1. Create a poem of your own and recite it in front of your classmates.
2. Analyse the poetic devices in your poem.

Lesson Transcript -5

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : Irregular verbs

Number of pupils : 63

Duration : 45 minutes

Date : 05 - 02-2025

Learning Outcomes

The pupil

1. Recall basic rules and past tense.
2. Apply irregular verbs correctly in various contexts.
3. Construct sentences of their own, incorporating irregular verbs.
4. Interprets the different forms of irregular verbs.
5. Define patterns and relationships between irregular verbs and their forms.

Game Name : Grammar Quest

❖ **Objective :** Matches verbs and irregular verbs with their past forms.

❖ **Game Play :**

1. Players drag matching verb pairs together.
2. Speed bonus for quick, accurate matches.

❖ **Scoring :** Points awarded for accuracy.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> The teacher creates a rapport with the students and motivates them to solve some fun grammar puzzles. Teacher asks some motivational questions like, <ol style="list-style-type: none"> What is the past tense of <div style="margin-left: 40px;">Walk Start Miss</div> Teacher introduces the concept of irregular verbs. 	<ul style="list-style-type: none"> Students solve the puzzle. Students answer the questions raised by the teacher. <div style="margin-left: 40px;">Walked Started Missed</div>

Onboarding Phase (5 min)	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of irregular verbs. <ol style="list-style-type: none"> 1. Go 2. Take 3. Be 4. Have 	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the Grammar quest game. ● Students answer the question given by the teacher as <ol style="list-style-type: none"> 1) Went 2) Took 3) Was 4) Had
Scaffolding Phase (30 min)	<ul style="list-style-type: none"> ● The teacher executes the game. ● The teacher asks the player to drag and drop to match the irregular verbs. ● For example: <ol style="list-style-type: none"> A) Fly B) Teach C) Buy D) Give 	<ul style="list-style-type: none"> ● Teacher encourages the students to drag the correct option to match the irregular verbs. ● Students respond to the question with the answer <ol style="list-style-type: none"> A) Flew B) Taught C) Bought D) Gave ● Speed for bonus quick,

		<p>accurate matches.</p> <ul style="list-style-type: none"> ● Students by playing the game recognise and understand concepts, solve problems.
<p>Endgame (5 min)</p>	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate learning, problem-solving and critical thinking.

Assignments

1. Find 10 irregular verbs and match it with their past form.
2. List out the irregular verbs.

Lesson Transcript -6

Name of the prospective Teacher Educator : Adhiti S H

Name of the School : Yettacode Higher Secondary
School

Standard : IX

Topic : The Christmas Truce

Number of pupils : 63

Duration : 45 minutes

Date : 06 - 02-2025

Learning Outcomes

The pupil

1. Recall different festivals.
2. Interprets the symbolism of Christmas and its impact on the soldiers behaviour and interactions.
3. Summarize the historical context and significance of the Christmas Truce of 1914 during World War I.
4. Utilize different vocabulary in the day to day context.
5. Develop empathy for the soldiers and their experience during the war.

Game Name : Word Warrior

❖ **Objective** : Find and highlight target words in themed word grids.

❖ **Game Play** :

1. Themed Puzzles

❖ **Scoring** : “Golden Words” provide bonus points.

Material Required: Laptop or Mobile phone

Time Guideline:

The total class time is assumed to be of 45 minutes, divided across each of the phases mentioned below:

- I. Discovery Phase (5 minutes)
- II. Onboarding phase (5 minutes)
- III. Scaffolding Phase (30 minutes)
- IV. Endgame Phase (5 minutes)

Phases	Teacher Activity	Student Activity
Discovery Phase (5 min)	<ul style="list-style-type: none"> ● The teacher creates a rapport with the students. ● Teacher asks some motivational questions. <ol style="list-style-type: none"> 1. Name one festival which you like the most. 2. How do you celebrate that festival? ● Teacher then gives a short introduction about Aaron Shepard for teaching the chapter ‘The Christmas Truce’. ● Teacher introduces the concept of Word Warrior 	<ul style="list-style-type: none"> ● Students solve the puzzle. ● Students answer the questions raised by the teacher. ● Students explain the concept of Word Warrior.

Onboarding Phase (5 min)	<ul style="list-style-type: none"> ● The teacher deploys the game scenario (rules, procedure, scoring and goals) ● The teacher assigns participants to play the game. ● Teacher gives some examples of Word Wizard <p>Truce Dugout Carols Trenches Maim</p>	<ul style="list-style-type: none"> ● Students summarize the rules and regulations of the game. ● Students prepare themselves to play the Word Warrior game.
Scaffolding Phase (30 min)	<ul style="list-style-type: none"> ● The teacher executes the game. ● The teacher asks the player to Find and highlight target words in themed word grids. ● For example: <ul style="list-style-type: none"> Splatter Slog Muck Stumble Bewilderment 	<ul style="list-style-type: none"> ● Teacher encourages the students to find the highlighted target words in the themed word grid. ● “Golden Words” provide bonus points. ● Students by playing the game recognise and create analogies to understand complex concepts, solve problems.
Endgame (5 min)	<ul style="list-style-type: none"> ● Teacher concludes the class by simplifying the main concept of the chapter. 	<ul style="list-style-type: none"> ● Students analyse their learning through games by reflecting on the game. ● Students facilitate

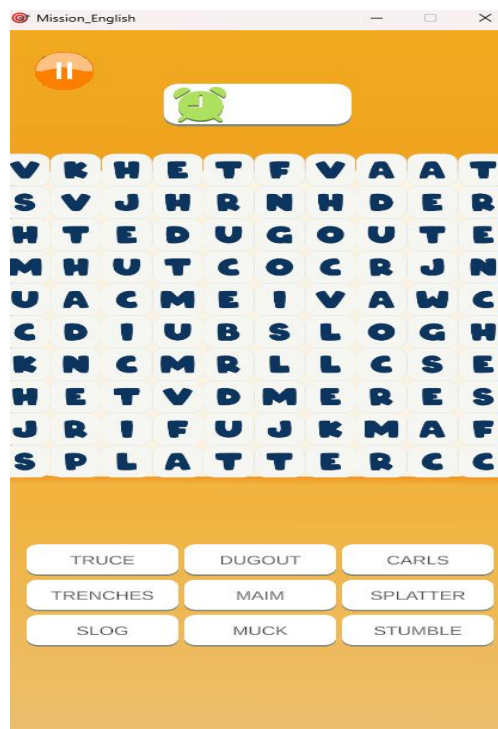
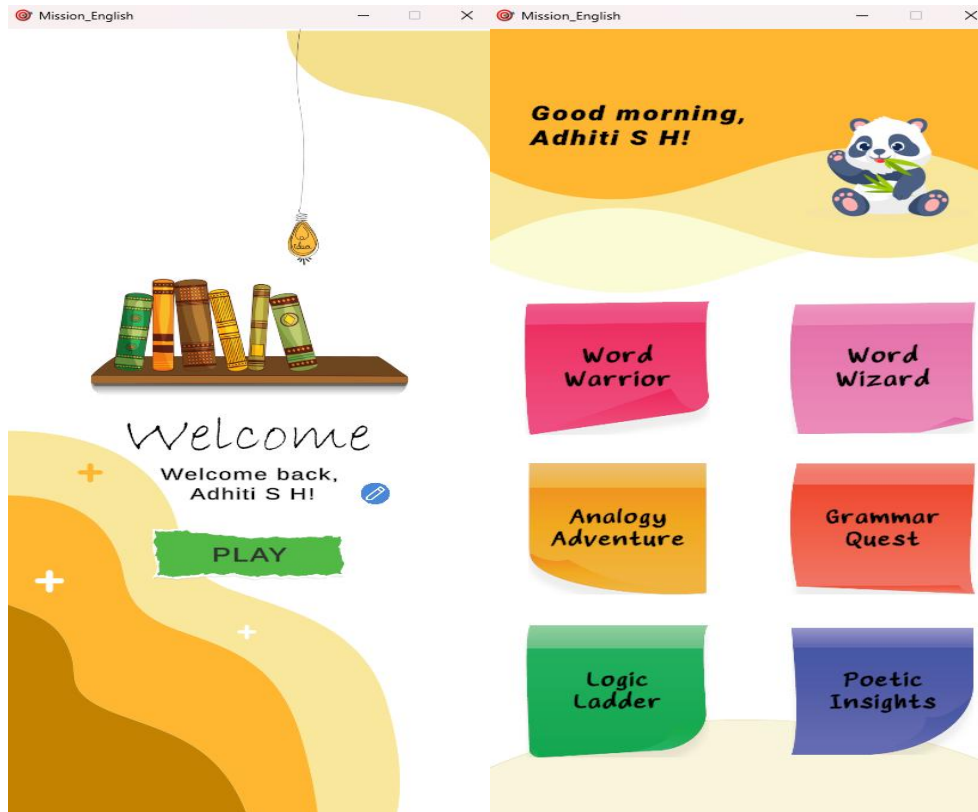
		learning, problem- solving and critical thinking.
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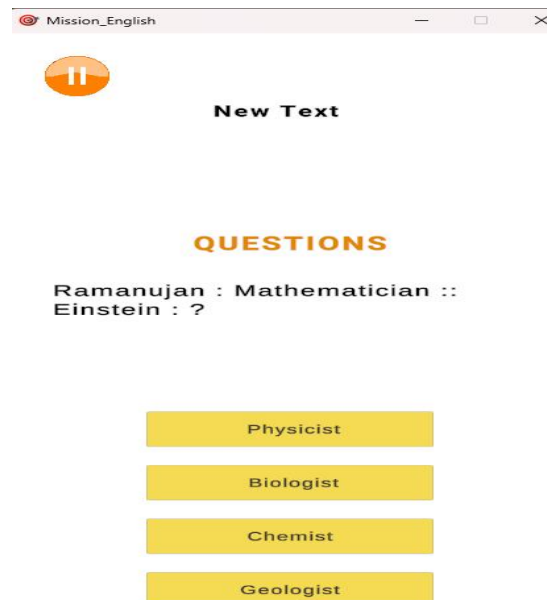
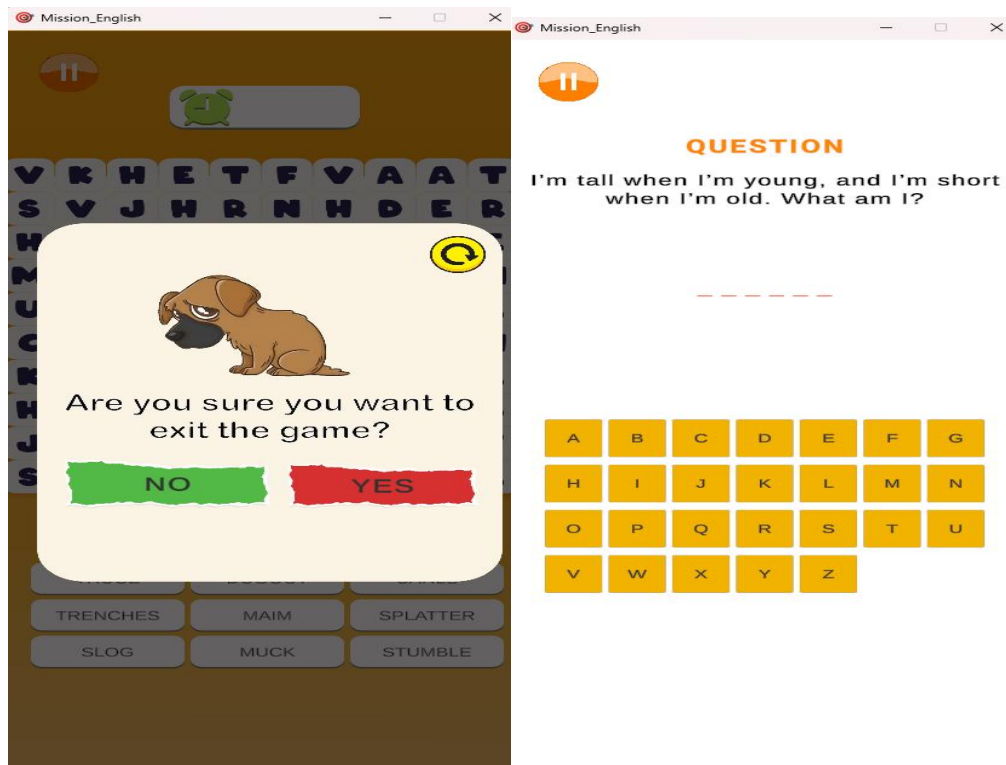
Assignments

1. Write about a memorable incident which happened during your favourite festival celebration.
2. Write a short message home, imagining that you took part in the 1914 Christmas Truce.

Appendix H

SCREENSHOTS OF THE GAME : USER INTERFACE





⏸

STATEMENT - 1

All astronauts travel to space.

STATEMENT - 2

The narrator's son is an astronaut.

CONCLUSION

The narrator's son travels to space.

CHOOSE

VALID

INVALID

STEP
1 OF 15

IRREGULAR
VERB

Fly

Teach

Buy

Give

PAST
TENSE

Questions
1/15

Drag and Drop on box

Bought

Gave

Flew

Taught

Mission_English



New Text

QUESTIONS

What poetic device is used in the line "A glowing ember in the midnight sky"?

Metaphor

Simile

Personification

Imagery

Appendix I

PICTURES OF USING LANGUAGE GAMES PACKAGE



Appendix J

Article Published by the

Investigator