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*Learning Monophthongs Phonetic Vowels through Active Reading in Students of 5th grade from
Escuela Lider La Aurora during the Second Quarter of 2025*

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Dedication

To my parents, Isabel Bejarano and Juan Hernández:

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Table of Contents

Chapter I	1
Introductory Framework	1
1.1 Problem Statement	1
1.2 Objectives of the Investigation.....	2
1.2.1 General Objective	3
1.2.2 Specific Objectives	3
1.3 Justification of the Study.....	3
1.4 Antecedents	5
1.5 Scope	9
Chapter II	11
Theoretical Framework	11
2.1) Theories of Language Acquisition.....	11
2.1.1 First Phonetic Sounds	13
2.1.2 Speech Mechanism	14
2.2 Theory of Second Language Acquisition.....	15
2.2.1 Speech Mechanism in Second Language Acquisition.....	17
2.2.1.1 Manners of Articulation.....	18
2.2.1.2 Place of Articulation	18
2.3) English as a Foreign Language in Latin America.....	19
2.3.1 Learning English as a Foreign Language in Latin America.....	21
2.4 Costa Rica’s Ministry of Public Education (MEP).....	22
2.4.1 English as a Foreign Language in Latin America Curriculum.....	23
2.5 Teaching Pronunciation to English as a Foreign Language in Latin America Students.....	24
2.5.1 Phonetic Challenges in Late Second Language Acquisition	25
2.5.2 Pronunciation Teaching Theories	27
2.5.2.1 Listen and Repeat.....	28

2.5.2.2 Listening and Imitating	29
2.5.2.3 Instructional Technology in Teaching Pronunciation	29
2.6 Phonetic Vowels.....	30
2.6.1 Monophthongs	31
2.6.1.1 Tense and lax Monophthongs	31
2.6.2 How to teach Phonetic Vowels.....	32
2.7 Reading in EFL classrooms.....	33
2.7.1 Phonetic Awareness and Reading.....	34
2.7.2 Active Reading to Improve Pronunciation	35
Chapter III	37
3.1 Type of Research.....	37
3.2 Type of Approach and Method	38
3.3 Population and Sampling	39
3.4 Instruments	40
3.4.1 Pre-test	41
3.4.2 Post-test	43
3.4.3 Student Self-Assessment Checklist	43
3.5 Application Strategies	44
3.5.1 Planning and Introduction to the Intervention	45
3.5.2 Implementation of Active Reading Activities	45
3.5.2.1 Listen and Repeat.....	47
3.5.2.2 Reading Aloud	48
3.5.2.3 Imitation and Echo Reading	50
3.6 Data Organization and Analysis.....	51
Chapter IV	53
Data Analysis	53
4.1 Analysis and Interpretation of the Results	53
4.1.1 Pre-test	54
4.1.1.1 Pronunciation Analysis of Monophthong Phonetic Vowels in Isolated Words	54
4.1.1.1.1 Pre-test results of phoneme /æ/ in “cat”	55
4.1.1.1.2 Pre-test results of phoneme /ɛ/ in “bed”	56

4.1.1.1.3 Pre-test results of phoneme /ɪ/ in “sit”	57
4.1.1.1.4 Pre-test results of phoneme /ʌ / in “sun”	58
4.1.1.1.5 Pre-test results of phoneme /ʊ/ in “book”	59
4.1.1.1.6 Pre-test results of phoneme /æ/ in “hat”	60
4.1.1.1.7 Pre-test results of phoneme /ɑ/ in “car”	61
4.1.1.1.8 Pre-test results of phoneme /i/ in “tree”	62
4.1.1.1.9 Pre-test results of phoneme /u/ in “food”	63
4.1.1.1.10 Pre-test results of phoneme /ɔ/ in “horse”	64
4.1.1.2 Pronunciation Analysis of Monophthong Phonetic Vowels in Complete Sentences	64
4.1.1.2.1 Pre-test results on sentence “The cat sat on the mat.”	66
4.1.1.2.2 Pre-test results on sentence “The sun is hot.”	67
4.1.1.2.3 Pre-test results on sentence “I do not like green eggs and ham.”	68
4.1.1.2.4 Pre-test results on sentence “The bus is red and full.”	69
4.1.1.2.5 Pre-test results on sentence “He put a book in the bag.”	70
4.1.1.2.6 Pre-test results on sentence “Sam could see the moon.”	71
4.1.2 Post-test	72
4.1.2.1 Pronunciation Analysis of Monophthong Phonetic Vowels in Isolated Words	72
4.1.2.1.1 Post-test results on isolated word “cat”	73
4.1.2.1.2 Post-test results on isolated word “bed”	74
4.1.2.1.3 Post-test results on isolated word “sit”	75
4.1.2.1.4 Post-test results on isolated word “sun”	76
4.1.2.1.5 Post-test results on isolated word “book”	77
4.1.2.1.6 Post-test results on isolated word “hat”	78
4.1.2.1.7 Post-test results on isolated word “car”	79
4.1.2.1.8 Post-test results on isolated word “tree”	80
4.1.2.1.9 Post-test results on isolated word “food”	81
4.1.2.1.10 Post-test results on isolated word “horse”	82
4.1.2.2 Pronunciation Analysis of Monophthong Phonetic Vowels in Complete Sentences	82
4.1.2.2.1 Post-test results on sentence “The cat sat on the mat.”	83

4.1.2.2.2 Post-test results on sentence “The sun is hot.”	84
4.1.2.2.3 Post-test results on sentence “I do not like green eggs and ham.”	85
4.1.2.2.4 Post-test results on sentence “The bus is red and full.”	86
4.1.2.2.5 Post-test results on sentence “He put the book in the bag.”	87
4.1.2.2.6 Post-test results on sentence “Sam could see the moon.”	88
4.1.3 Student Self-Assessment Checklist	89
4.1.3.1 After Pre-Test.....	89
4.1.3.2 After Post-Test	90
Chapter V Conclusions and Recommendations	91
5.1 Purpose of the Conclusion	91
5.2 Conclusions	91
5.2.1 To identify different problems students face throughout the pronunciation learning path	92
5.2.2 To create assessment tools for pronunciation based on active reading	92
5.2.3 To analyze the assessment results based on students’ pronunciation skills	93
5.3 Restatement of the Research Question.....	94
5.4 Unexpected Results	95
5.5 Recommendations	95
References	97

Table of Tables

Table 1. Pronunciation Assessment Rubric	42
Table 2. Student Self-Assessment Checklist	44

Table of Figures

Figure 1. Pre-test results of phoneme /æ/ in “cat”	55
Figure 2. Pre-test results of phoneme /ɛ/ in “bed”	56
Figure 3. Pre-test results on isolated word “sit”	57
Figure 4. Pre-test results on isolated word “sun”	58
Figure 5. Pre-test results on isolated word “book”	59
Figure 6. Pre-test results on isolated word “hat”	60
Figure 7. Pre-test results on isolated word “car”	61
Figure 8. Pre-test results on isolated word “tree”	62
Figure 9. Pre-test results on isolated word “food”	63
Figure 10. Pre-test results on isolated word “horse”	64
Figure 11. Pre-test results on sentence “The cat sat on the mat.”	66
Figure 12. Pre-test results on sentence “The sun is hot.”	67
Figure 13. Pre-test results on sentence “I do not like green eggs and ham.”	68
Figure 14. Pre-test results on sentence “The bus is red and full.”	69
Figure 15. Pre-test results on sentence “He put the book in the bag.”	70
Figure 16. Pre-test results on sentence “Sam could see the moon.”	71
Figure 17. Post-test results on isolated word “cat”	73
Figure 18. Post-test results on isolated word “bed”	74
Figure 19. Post-test results on isolated word “sit”	75
Figure 20. Post-test results on isolated word “sun”	76
Figure 21. Post-test results on isolated word “book”	77
Figure 22. Post-test results on isolated word “hat”	78
Figure 23. Post-test results on isolated word “car”	79
Figure 24. Post-test results on isolated word “tree”	80

Figure 25. Post-test results on isolated word “food”	81
Figure 26. Post-test results on isolated word “horse”	82
Figure 27. Post-test results on sentence “The cat sat on the mat.”	83
Figure 28. Post-test results on sentence “The sun is hot.”	84
Figure 29. Post-test results on sentence “I do not like green eggs and ham.”	85
Figure 30. Post-test results on sentence “The bus is red and full.”	86
Figure 31. Post-test results on sentence “He put the book in the bag.”	87
Figure 32. Post-test results on sentence “Sam could see the moon.”	88
Figure 33. After pre-test self-assessment.....	89
Figure 34. After post-test self-assessment	90

Chapter I

Introductory Framework

This chapter introduces the foundational elements of the research *Learning Monophthongs Phonetic Vowels* by addressing the context and relevance behind its development. It begins by presenting the problem statement, which highlights the limited presence of pronunciation focused instruction, particularly regarding monophthong phonetic vowels within the Costa Rican public education system. Following this, the objectives, both general and specific, are outlined to guide the research process. The chapter also includes the justification, which explains the importance of integrating phonetics through active reading at an early stage of language acquisition, and a collection of selected antecedents from previous studies that support the theoretical foundation of this work. Lastly, the scope of the study is described to clarify the extent and expectations of the investigation with the selected target population.

1.1 Problem Statement

This investigation acknowledges that there is insufficient emphasis on pronunciation objectives within Costa Rica's Ministry of Public Education (MEP); therefore, this emerges as a pressing matter that affects both EFL students and teachers. As a consequence of this limitation, students develop poor pronunciation foundations, as well as inferior listening comprehension skills resulting in deficiencies when conveying clear messages in general communication. These pre-existing obstacles and conditions must be considered to achieve the purpose of this investigation, which will be further developed below. This is a consistent situation in MEP which

if addressed soon, not only the expected results can be fulfilled, but also the long-term outcomes such as having more opportunities in academic and professional contexts, can be carried out.

As mentioned above, there are specific factors to consider during the investigation process with the target population: fifth graders at Escuela Líder La Aurora. These factors include poor or inexistence of technical infrastructure to teach pronunciation and lack of assessment tools to evaluate this skill. On the other hand, collective limitations such as language impairment and large class sizes can play a critical role in this analysis, as well as low reading proficiency as a complementary and essential skill for the development of this practice. All considerations stated in the previous lines guided this research paper to the following question:

What is the effect of improving pronunciation by focusing on monophthong phonetic vowels through active reading in Students of Fifth Grade at Escuela Líder La Aurora During the Second Quarter of 2025?

1.2 Objectives of the Investigation

This investigation aims to build pronunciation skills related to monophthong phonetic vowels in the target language, focusing on pattern identification and differentiation, and proper phoneme articulation. Moreover, it seeks to demonstrate that improving students' confidence plays an important role in sharpening pronunciation skills. This investigation attempts to achieve the following objectives:

1.2.1 General Objective

To evaluate the effect of active reading strategies on the development of students' pronunciation skills in monophthong phonetic vowels, through the application of both formative and summative assessment tools in fifth graders of Escuela Líder La Aurora

1.2.2 Specific Objectives

- To identify different problems students' face throughout the pronunciation learning path
- To create assessment tools for pronunciation based on active reading
- To analyze the assessment results based on students' pronunciation skills

1.3 Justification of the Study

Learning phonetics at an early stage, especially in the context of a foreign language such as English in Costa Rica, where the mother tongue is Spanish, is an important part during the student's learning process. Unfortunately, in public institutions, besides extensive use of the primary language, most EFL classes focus on grammar and vocabulary instruction leaving pronunciation and phonetics aside when it is an essential skill to be practiced and hopefully acquired at a short age in order to have effective communication when it comes to life experiences.

Communication is about receiving and delivering a message, and since infancy, sounds come out from their mouth expressing discomfort, a request, or happiness. On the other hand, when it comes to understanding the message, the phonetic aspect of communication comes first, due to its difficulty to understand mispronounced words, divide the sounding stream of speech into semantic units or confusion in significant words not because not knowing the meaning of some words or misunderstand the meaning of phrases and statements (What is the Purpose of

Teaching Children English Pronunciation, 2021). Therefore, teaching phonetics at short ages, and making appropriate corrections when necessary is fundamental during the target language learning process.

Another important reason for giving attention to pronunciation is that it positively affects the four skills: Speaking, Listening, Writing, and Reading. By prioritizing reading, Press (2019) states that learning to recognize vowels is an important step in learning to read. Words are divided into small bites of sounds called syllables, and vowel sounds are the base of each syllable. Taking this into consideration, recognizing vowel sounds when reading aloud can boost students' capacity not only to learn phonetics but to apply them. Furthermore, active self-low reading allows students to question their own pronunciation once the phoneme articulation and the vowel patterns are learnt.

As stated in the Problem Statement, the purpose of this investigation is to construct pronunciation fundamentals based on monophthong phonetic vowels in English through active reading. The target population are four grader students at Líder La Aurora School located in Heredia, Costa Rica. They are still at a short age stage that will be beneficial for them during the phonetic practice. Since this is a public school, the researcher wants to reinforce the phonetic basics; therefore, monophthongs were chosen instead of all the range of vowels, excluding diphthong and their variations such as vowels followed by /r/ that might confuse the students if the fundamentals are not clear.

In order to achieve the objectives of the research a combination of traditional and modern techniques will be put into action. When teaching monophthongs in isolated words, the conventional approach of Listen and Repeat aid by picture flashcards will be used. For complete

sentences and phrases, children's tales will be used in Reading Aloud technique. Depending on the limitations of the institution, if a projector is available, the tale can be displayed. Moreover, recordings of the tales will be reproduced using a speaker. Regarding the evaluation, it is intended to create tools to assess students' performance in both, isolated words and in context phrases/sentences. A pretest and a posttest will also be carried out to compare students' initial knowledge against the final results.

1.4 Antecedents

During this research, several investigations were reviewed as part of the existing literature to support this paper. One of the most important findings was the investigation led by Dr. David D. Paige (2020), titled "Reading Fluency: A Brief History, the Importance of Supporting Processes, and the Role of Assessment". Dr Paige, analyzed traditional reading teaching techniques to cultivate fluent reading in students. Moreover, Dr. Paige mentioned the book "McGuffey's Eclectic Reading Series (1853) used as a resource for learning to read. As Paige (2020) stated, The McGuffey's reader highlights the qualities of reading fluency today – a reading rate that closely simulated oral conversation and accurate word pronunciation.

Additionally, Dr Paige considered the studies carried out by Chomsky in 1978 and Samuels in 1983 during his investigation. Both studies examined the traditional technique of repeated readings to improve reading fluency. In this strategy, students read a short text of 100 to 200 words four times or so over the course of several days. Readings are conducted in the company of a teacher to assist with difficult word pronunciations (Paige, 2020). Both studies concluded that this traditional approach effectively helped students to correct mispronunciations and of course, to improve reading fluency.

Moreover, the investigator made an important point in phonemic awareness and orthographic mapping as necessary reading processes for fluent reading. Once students are familiarized with hearing and manipulating the sounds of the target language, the hypothesis of the word orthographic mapping is developed:

The orthographic mapping theory hypothesizes that early readers use their knowledge of the sounds associated with written words and word-parts to anchor word spellings in memory. While phonemes are associated with speech, an alphabetic language such as English represents those phonemes using individual letters and letter combinations. (Paige, 2020)

When comparing the investigation made by Dr. David D. Paige (2020), titled “Reading Fluency: A Brief History, the Importance of Supporting Processes, and the Role of Assessment” with the present research on Monophthong Phonetic Vowels through Active Reading, it was found a clear similitude between Reading and Phonetics. Dr. Paige (2020) states that good readers do not visually recall words from memory based on their spelling, rather they recall the spelling of words based on the sounds represented by their spelling.

Although there are not many other recent investigations specifically related to learning monophthong phonetic vowels through active reading, Nadia Ghounane (2019) conducted the titled “The Attitudes of Second Year EFL Students at Dr Moulay Tahar University towards Learning English Pronunciation through Mobile Assisted Language. “In this investigation, she used a technology app as a learning tool to teach and learn pronunciation. In this paper, the researcher attempted to test the attitudes of both learners and teachers towards the inclusion of mobile learning in higher education in the Algerian context through an experiment regarding

English pronunciation (Ghounane, 2019). For the research methodology, Ghounane used a reading and listening based test. This test involved reading a short story from BBC News using an app, it included a pretest and a post test. In the Pre-Test, students recorded themselves reading aloud the story; secondly, they listened to a native speaker's reading and identified the words that they mispronounced. Finally, they repeated this process for the post test, which was the one being evaluated. Notorious improvements were accomplished in the posttest since. According to Ghounane, 2019, pronunciation accuracy improved by 72.63% because they based their reading on listening to native speakers through the application. In comparison to the present research paper, both intend to use reading techniques as an approach to learning pronunciation focusing on articulating phonetics correctly; one through mobile techniques and the other by active reading.

Another important research is the one conducted by Aseptiana Parmawati in 2018, titled "The Study Correlation Between Reading Habit and Pronunciation Ability at the Second Grade Students of Ikip Siliwangi." The target population were 30 students from the above-mentioned institution. According to Parmawati (2018), students' reading habits play an important role in pronunciation mastery. This research used the correlation research. The objective of the study was to reveal correlation between students' reading habits and their pronunciation ability. The data collection instruments used in this investigation were a Questionnaire and a Pronunciation Test. The questionnaire was focused on the students' reading habits and aimed at acquiring ~~this~~ data related to this aspect. Based on the results of the research, it can be concluded that there is low correlation between students' reading habits in English and their pronunciation ability among second-grade students at Ikip Siliwangi during the 2017/2018 academic year (Parmawati, 2018). In contrast to the investigation on Learning English Pronunciation through Mobile

Assisted Language mentioned above, which showed that the outcomes were positive between reading and pronouncing. This paper on the correlation between reading habits and pronunciation ability is quite low.

An additional investigation was also taken into consideration was conducted by Elian Acuña and Johanna Quirós (2017), which is titled “Implementation of the Multistage Frame Technique to Enhance Students’ Pronunciation of Standard American English Vowel Sounds in Group 10-1A at Canaán High School”. According to Acuña and Quirós (2017), the Multistage Frame Technique is a sequence of instructional strategies and activities organized in a logical progression, starting from the most basic language components and gradually moving toward more complex ones. During the fieldwork, the researchers applied a pretest and a posttest to the tenth graders, each following the same format. It was divided into two parts and included the following vowel sounds: /aɪ/, /aʊ/, /ɛ/, /eɪ/, /i/, /ɪ/, /ɔ/, /oʊ/, /ɔɪ/, /ʊ/, /u/, /æ/, /ʌ/, /ə/, /ɝ/, /ɜ/. The first one part consisted of 16 isolated words, and the second one consisted of 16 sentences and phrases. Students had to read the words and record themselves using a microphone and a computer.

The difference between the pretest and the posttest was that the latter was conducted with teacher’s assistance prior to performing it. After the administration of the treatment, all participants increased their scores from 12 to 27 points from one test to the other. This means that although the Costa Rican system overlooks the instruction of pronunciation, its inclusion in the regular classroom setting provides the students with adequate tools to become intelligible when interacting in the target language (Acuña & Quirós, 2017). As can be seen in this investigation, the correlation of reading and pronunciation makes a positive impact on students,

of course, with the guidance of the teacher. Therefore, the expectations of the current research under investigation on Learning Monophthong Phonetic Vowels through Active Reading among fifth graders have increased.

Without overlooking the teacher's fundamental role in pronunciation classes, Greivin León (2021) conducted an investigation titled "The Role of Non-Native English Teachers (NNETs) Within the English Learning Process". In this research, the author analyzed the role of a NNETs in comparison to native English teachers. These important differences regarding the techniques and methodologies used by teachers in the educational process, are reflected in the approach and treatment of the students. Among the main recommendations generated as a result of this article, is the need of English teachers. This means to improve pronunciation, considering that it is one of the points in which students learning a nonnative language require reinforcement (Greivin, 2021).

1.5 Scope

This investigation will be focused on students learning English phonetic vowels through active reading in a EFL classroom. By the end of this investigation, the following outcomes are expected to be reached by the students:

1. To learn monophthong phonetic vowels through active reading
2. To build pronunciation basics on monophthong phonetic vowels in their target language such as pattern identification and differentiation, and proper phoneme articulation
3. To overcome possible limitations that students face throughout the pronunciation learning process
4. To make the vowel-sound correspondence while word or sentence active reading

5. To surpass any possible complication teachers could encounter throughout the pronunciation learning process
6. To evaluate the effectiveness of the assessment tools designed to improve ~~for~~ pronunciation through active reading
7. To demonstrate students' confidence improvement by focusing on their pronunciation skills

Chapter II

Theoretical Framework

This chapter explores the theoretical foundations relevant to the development of pronunciation skills in English as a Foreign Language (EFL), with a focus on monophthongs and phonetic awareness. It begins by discussing the role of pronunciation in language learning and the specific challenges faced by EFL students. The chapter then examines effective instructional approaches, including traditional techniques such as listening and repetition, imitation, and active reading, as well as the integration of instructional technology. The phonetic features of vowels—particularly monophthongs—are analyzed through the lens of the International Phonetic Alphabet (IPA) and the distinction between tense and lax vowels. Additionally, the chapter highlights the importance of phonetic awareness in reading development and outlines evidence-based strategies, such as phonics instruction, that support both pronunciation and literacy skills. Together, these concepts provide the theoretical foundation for the implementation of active reading activities aimed at improving pronunciation in young EFL learners.

2.1) Theories of Language Acquisition

The theory of language acquisition refers to the process by which humans acquire the ability to use and understand language. Since it is a complex and multifaceted process, researchers have proposed various theories to explain how this happens. Language acquisition theories attempt to explain how children learn a language, and the cognitive, social, and linguistic factors that contribute to this process (Hoff & Naigles, 2018). One of the most influential theories of language acquisition is the Social Interactionist Theory, which posits that

language development is primarily driven by social interactions and the context in which language is used. While this theory is largely associated with scholars such as Vygotsky and Bruner, its foundational principles are also supported by research from Sameroff, McDonough, and Rosenblum (2004), who emphasize the bidirectional nature of development—highlighting the constant interaction between biology, culture, and environmental context. According to the theory, children acquire language through active participation in communicative exchanges with caregivers and other members of their social environment, where language is both modeled and scaffolded.

Another prominent theory is the Generative Grammar Theory, which emphasizes the role of innate linguistic structures and mechanisms in language acquisition (Chomsky, 2018). This theory posits that children are born with a set of universal grammatical rules and principles that allow them to acquire any language they are exposed to. Although Chomsky originally developed this theory in the 1950s, the 2018 edition cited here offers a modern compilation and update of his foundational ideas, making his work more accessible and reflecting how his theory continues to influence language studies today.

Recent research has also highlighted the importance of cognitive and neural factors in language acquisition, such as working memory capacity and the neural networks involved in language processing (Skeide & Friederici, 2020). These findings suggest that language acquisition is a complex and dynamic process that involves multiple interacting factors.

Each theory has its own strengths and weaknesses, and researchers continue to study and debate the nature of language acquisition. While different theories may emphasize different aspects, they all highlight the crucial role of social, cognitive, and linguistic factors in shaping how children learn language.

2.1.1 First Phonetic Sounds

One of the earliest milestones in language acquisition is the production of the first phonetic sounds, which typically occurs around 6 to 8 weeks of age (Kuhl, 2018). It marks the beginning of the journey towards mastering the complexities of language and lays the foundation for future linguistic abilities. By producing the first phonetic sounds, infants demonstrate their ability to use their vocal tract to create sounds that resemble speech. These first sounds, often referred to as coos or babbling, are characterized by the repetition of vowel-like sounds and simple consonant-vowel syllables (Oller & Griebel, 2018).

Research has shown that infants are able to distinguish between different phonetic sounds from a very early age (Kuhl, 2018). For example, newborn infants have been found to prefer listening to their native language over a foreign language, suggesting that they are able to detect the phonetic differences between the two languages (Moon, Lagercrantz, & Kuhl, 2013). This ability to discriminate between phonetic sounds sets the stage for later language development due to the infant's auditory system is already attuned to the phonetic properties of their native language, even before they are born. This sensitivity to phonetic sounds is vital to language acquisition, as it helps infants to distinguish between different speech sounds and form meaningful phonetic categories in their minds.

One theory of language acquisition that emphasizes the importance of first phonetic sounds is the Usage-Based Approach (Tomasello, 2019). This approach suggests that language is learned through the accumulation of usage-based constructions, which are based on the speaker's experiences with language use. According to this theory, first phonetic sounds play a critical role in the acquisition of language, as they allow infants to link their own vocalizations to the sounds of their native language.

Other researchers have emphasized the importance of social interaction and joint attention in the development of first phonetic sounds and early language learning (e.g., Tomasello & Gopnik, 2017). Joint attention refers to the shared focus of attention between an infant and their caregivers and is considered crucial for early word learning (Kuhl, 2018). Infants who engage in more joint attention with their caregivers have been found to have larger vocabularies and faster rates of language development (Hoff & Naigles, 2018). Overall, the acquisition of first phonetic sounds is a critical milestone in language development, setting the stage for later language learning. The ability to distinguish between different phonetic sounds, along with social interaction and joint attention, are all important factors in the development of language.

2.1.2 Speech Mechanism

The speech mechanism, which includes the physical structures and processes involved in producing speech, is closely related to language learning. According to Sancier & Fowler, 2019, the development of speech motor skills plays a crucial role in the acquisition of language skills.

One way in which the speech mechanism contributes to language learning is through the production of sounds. As children learn to produce speech sounds, they are also learning the phonemes, or basic units of sound, that make up their language. Children who have difficulty producing certain speech sounds also struggle with the corresponding phonemes in their language (Gildersleeve-Neumann, Goldstein, & Powell, 2018).

Additionally, the speech mechanism plays a crucial role in the production and perception of vowels, which are one of the most basic building blocks of language. The production of vowels involves the coordinated movements of various parts of the speech mechanism, including the tongue, lips, jaw, and vocal cords. Children must learn to control these movements in order to

produce the precise sounds required by their language. Studies have shown that children with speech difficulties often struggle to produce the full range of vowel sounds in their language (Gierut, Morrisette, & Hughes, 2018). In addition to producing vowels, the speech mechanism also plays a critical role in perceiving and distinguishing between different vowel sounds. As children hear and process language input, their brains learn to identify the acoustic cues that distinguish one vowel sound from another. This process is facilitated by the speech mechanism, which allows to discriminate between subtle differences in pitch, duration, and other acoustic features of speech sounds (Polka & Bohn, 2019).

Furthermore, the development of the speech mechanism is closely tied to the development of other cognitive and motor skills that support language learning. For example, studies have shown that children with better motor skills, such as those involved in manual dexterity and spatial reasoning, also have better language skills (Suggate, Stoeger, & Weiß, 2017). As children become more proficient at distinguishing between vowel sounds, they are better able to process the linguistic input they receive and build a stronger foundation for language learning. In short, the speech mechanism plays a critical role in language learning and the production and perception of vowels, which are a fundamental component of language learning and in the development of related cognitive and motor skills. A better understanding of the relationship between the speech mechanism, language learning, and vowel production can inform more effective interventions and support for children with speech difficulties.

2.2 Theory of Second Language Acquisition

Since ~~As~~ it is important to mention how humans acquire language at a short age this research also highlights the process learning a second tongue. The theory of second language

acquisition (SLA) states that individuals can learn a new language at any age, and that there are various factors that influence the process and outcomes of language learning (Ellis, 2018). SLA theories have evolved over time, from early behaviorist models that emphasized the role of reinforcement and habit formation, as mentioned in the previous chapter, to more recent cognitive and social constructivist models that emphasize the role of input, interaction, and individual differences in learning (Long & Doughty, 2019).

One key aspect of SLA theory is the role of input, or the language that learners are exposed to through listening and reading (Krashen, 2017). According to Krashen's Input Hypothesis, language acquisition occurs when learners receive comprehensible input that is slightly beyond their current level of proficiency. Comprehensible input is the one that learners can understand with the help of context and prior knowledge, and that contains enough novelty to promote learning (Krashen, 2017). Another important element of SLA theory is the role of interaction and feedback in language learning (Swain, 2018). According to Swain's Output Hypothesis, learners also need opportunities to produce language through speaking and writing, and to receive feedback on their errors and how to correct them. Through this process of negotiation of meaning, learners can develop their language skills and move towards more accurate and fluent production (Swain, 2018).

In addition, individual differences such as motivation, aptitude, and learning strategies also play a role in SLA. Learners who are more motivated and have a positive attitude towards the target language are more likely to succeed in learning it. Learners with high aptitude for language learning may also progress more quickly and effectively. Finally, learners who use effective learning strategies such as setting goals, practicing regularly, and seeking feedback are also more likely to achieve success in SLA (Dörnyei & Ryan, 2018). The theory of second

language acquisition recognizes the complexity of language learning and highlights the role of various factors such as input, interaction, and individual differences in the process and outcome of learning a new language. Researchers continue to explore these and other factors to better understand how to support language learners in achieving their goals.

2.2.1 Speech Mechanism in Second Language Acquisition

The speech mechanism is an essential component of second language acquisition, as it plays a significant role in the production and perception of speech sounds in the target language. The speech mechanism can have both positive and negative effects on second language learning (Derwing & Munro, 2017). One way in which the speech mechanism can affect second language acquisition is through accent. As learners develop their pronunciation skills in the target language, the speech mechanism must adapt to produce the sounds of the new language. However, according to Golestani & Zatorre, 2017, learners may also struggle to overcome the influence of their mother tongue on their speech production, leading to the development of a foreign accent.

Furthermore, research has shown that the development of speech motor skills is critical for second language learning. Hakimzadeh & Haghighi (2021) state that learners must learn to coordinate the movements of the speech mechanism to produce the sounds of the new language accurately. These studies have demonstrated that individuals with better speech motor skills tend to have better pronunciation skills in the second language. The articulatory system is also involved in the perception of speech sounds in the second language. Learners must learn to discriminate the different sounds of the new language and map them to the appropriate phonemes. According to Golestani & Zatorre (2017), the ability to perceive and discriminate speech sounds is closely linked to second language learning success. The speech mechanism

plays a crucial role in second language acquisition, both in the production and perception of speech sounds. A better understanding of the relationship between the speech mechanism and second language learning can inform interventions and support for language learners.

2.2.1.1 Manners of Articulation

Monophthongs are single, stable vowel sounds produced with a relatively steady tongue position and unchanging vocal tract configuration throughout their articulation (Ladefoged & Johnson, 2019). Unlike diphthongs, which involve a glide from one vowel quality to another, monophthongs maintain one consistent articulatory position. The articulation of vowel sounds, including monophthongs, is primarily described in terms of tongue height (high, mid, low), tongue advancement (front, central, back), and lip rounding (rounded or unrounded), rather than the manners of articulation used for consonants. For example, the vowel /i/ in “seat” is a high front unrounded vowel, while /ɑ/ in “father” is a low back rounded vowel. Understanding how monophthongs are articulated is crucial for helping learners accurately perceive and produce English vowel sounds, especially when their native language lacks certain distinctions. Moreover, this knowledge can support pronunciation teaching and phonetic awareness activities that improve listening and speaking skills (Bernstein Ratner & Ratner, 2017).

2.2.1.2 Place of Articulation

Place of articulation refers to the locations in the mouth and throat where speech sounds are produced (Ladefoged & Johnson, 2019). There are several places of articulation, including bilabial, labiodental, dental, alveolar, post-alveolar, palatal, velar, and glottal. Each place of

articulation is characterized by a specific position or movement of the tongue, lips, teeth, and other articulators, which affects the quality of the sound produced (Ladefoged & Johnson, 2019).

Bilabial sounds are produced with both lips coming together, such as sounds /p/, /b/, and /m/. Labiodental sounds are produced with the lower lip touching the upper front teeth, such as sounds /f/ and /v/. Dental sounds are produced when the tip of the tongue is between the upper and lower teeth, such as sound /θ/ in "thin" and /ð/ in "this". Alveolar sounds are produced with the tongue touching the alveolar ridge behind the upper front teeth, such as /t/, /d/, and /s/. Postalveolar sounds are produced with the tip of the tongue touching the area just behind the alveolar ridge, such as the sounds /ʃ/ and /ʒ/. Palatal sounds are produced with the tongue touching the hard palate in the middle of the mouth, such as /j/ in "yes" and /tʃ/ in "church". Velar sounds are produced with the back of the tongue touching the soft palate, such as /k/, /g/, and /ŋ/. Glottal sounds are produced with no vibration of the vocal cords, that is without any obstruction in the throat, such as the sound /h/ (Ladefoged & Johnson, 2019).

Being familiar with the places of articulation helps to explain the acoustic properties of speech sounds and how they are distinguished from one to another. It also can help learners of a new language to produce sounds correctly and to distinguish between similar sounds that may be difficult to perceive. Finally, it can help speech pathologists to diagnose and treat speech disorders that may be related to problems with articulation (Bernstein Ratner & Bernstein Ratner, 2017).

2.3) English as a Foreign Language in Latin America

English has become a vital language in Latin America, as many countries have incorporated English language learning into their national curriculum. In countries like Brazil, Argentina, Colombia, and Mexico, English is taught as a compulsory subject in schools, and

many universities require students to demonstrate proficiency in English as part of their admission process. However, despite the growing importance of English, proficiency levels are still relatively low in Latin America, since many students struggle to achieve fluency.

One of the main challenges of learning English as a foreign language in Latin America is the lack of exposure to authentic language use. Many learners are taught in a classroom setting, where they are exposed to a limited range of vocabulary and language structures; consequently, they are often unable to practice speaking and listening skills in real-life situations. This lack of exposure to authentic language can hinder students' progress and motivation, leading to a plateau in their language proficiency.

To address the challenges of English as a Foreign Language in Latin America (EFL), educators and researchers are exploring new methods and strategies for teaching and learning English. One of the latest trends in EFL learning is the use of technology to enhance language acquisition. Mobile devices, such as smartphones and tablets, are becoming more prevalent in Latin America, and are being used as tools for language learning. Mobile-assisted language learning (MALL) involves using mobile devices to provide learners with access to authentic language materials, such as podcasts, videos, and online resources, and to facilitate communication with native speakers of English.

Research has shown that MALL can be an effective tool for language learning in Latin America (González-Lloret & Ortega, 2014). For example, a study conducted by Li & Li (2017) found that using mobile apps for vocabulary learning improved students' vocabulary acquisition and retention. Moreover, a study conducted by Manzo and Buelvas (2019) showed that using WhatsApp to facilitate communication between learners and native speakers of English led to significant improvements in students' speaking and listening skills.

Finally, a growing trend in EFL learning in Latin America is the use of content and language integrated learning (CLIL), which involves teaching subject content in English. CLIL is designed to develop students' language skills while also teaching them subject-specific knowledge. Studies have shown that CLIL can be an effective tool for language learning in Latin America (Valdivia, 2018). For example, a study by Cerda (2019) found that using CLIL to teach science subjects in English led to significant improvements in students' language proficiency and subject knowledge. Learning English as a foreign language in Latin America presents unique challenges, such as the lack of exposure to authentic language use. However, the latest trends in EFL learning, such as the use of technology, TBLT, have helped students to improve their skills.

2.3.1 Learning English as a Foreign Language in Latin America

Learning English as a foreign language (EFL) has become increasingly important in Latin America due to its global significance in business, education, and communication. Many countries in the region have recognized the need to improve their citizens' English language proficiency; therefore, they have implemented various strategies to achieve this goal. According to a study by the British Council (2018), English language learning has become a priority for many countries in Latin America. This has resulted in the implementation of policies, programs, and initiatives aimed at improving English proficiency among citizens. For instance, Brazil has implemented a national program called "English Without Borders," which offers English language courses to students and teachers across the country (Mohan, 2017). Similarly, Colombia has implemented the program "Bilingüismo para la Paz", which aims to improve English proficiency among students in order to promote peace and economic growth (Alcaldía de Medellín, 2018).

In addition to national programs, many schools and universities in Latin America have also implemented English language courses and programs. For example, in Mexico, the National Autonomous University of Mexico offers English language courses for students in various disciplines (UNAM, 2021). Similarly, the Pontifical Catholic University of Chile offers English language courses for its students, as well as for members of the community (PUC, 2021).

Despite these efforts, learning English as a foreign language in Latin America still faces challenges. One of the major challenges is the lack of qualified English language teachers. According to a report by the British Council (2018), many countries in the region have a shortage of qualified English language teachers, which hinders the effectiveness of English language programs. To address this issue, some countries have implemented programs to train and certify English language teachers. In short, learning English as a foreign language in Latin America is an important issue that has gained attention from governments, schools, and universities in the region

2.4 Costa Rica's Ministry of Public Education (MEP)

The Ministry of Education in Costa Rica, also known as the Ministerio de Educación Pública (MEP), is responsible for overseeing the country's education system. MEP has implemented various policies and programs that focus on improving teacher training, increasing access to technology, and promoting inclusive education (Ministerio de Educación Pública, n.d.). One of MEP's key programs is the National Education Plan, which provides a framework for improving the quality and accessibility of education in Costa Rica (Diaz, 2020). Another important initiative is the Bilingualism Program, which aims to promote the learning of English as a second language in all Costa Rican schools.

MEP also works to promote inclusive education, ensuring that students with disabilities and special needs have access to quality education. In recent years, MEP has faced challenges such as budget limitations, teacher shortages, and the need to adapt to the changing scene of education in the digital age (Ministerio de Educación Pública, n.d.). Overall, the Ministry of Education in Costa Rica plays a crucial role in ensuring that all citizens have access to high-quality education. Through its policies and programs, MEP is working to create a more equitable and inclusive education system, helping to ensure that Costa Rican students are prepared to succeed in a rapidly changing world.

2.4.1 English as a Foreign Language in Latin America Curriculum

English language proficiency has become increasingly important in today's globalized world, as it is widely regarded as the lingua franca of international communication. Therefore, many countries, including Costa Rica, have recognized the need to improve English language education in their schools. According to the Ministry of Public Education in Costa Rica, new English language programs began implementation in schools starting in 2021 (Diaz, 2021). The aim of these programs is to improve students' English language proficiency, which is essential for their future academic and professional success.

The new English language programs in Costa Rica include a focus on developing both oral and written communication skills, which are key components of language proficiency. These programs aim to provide students with the necessary tools to communicate effectively in English, both in formal and informal settings. The Ministry of Public Education has also incorporated the use of technology in the programs to enhance the learning experience. This approach is

consistent with current trends in language education, which emphasize the importance of integrating technology into language learning (Felix, 2019).

The implementation of the new English language programs in Costa Rica is a positive step towards improving the quality of education and preparing students for the globalized world. As the Ministry of Public Education has noted, the programs aim to better prepare students for future academic and professional endeavors (Diaz, 2021). By developing their English language proficiency, Costa Rican students will be better equipped to compete in the global job market and to engage in international academic collaborations. Therefore, the new English language programs are a crucial investment in the future of Costa Rica's education system and economy.

2.5 Teaching Pronunciation to English as a Foreign Language in Latin America Students

Teaching pronunciation to English as a Foreign Language (EFL) students is a crucial aspect of language instruction, as it helps learners to communicate effectively in English. This task can be challenging for EFL teachers, especially when working with students from diverse language backgrounds. This essay discusses some effective strategies for teaching pronunciation to EFL students and provide in-text references of books published from 2017 to 2023.

One of the most critical strategies for teaching pronunciation is the use of models. EFL students need to hear and mimic accurate pronunciation patterns to improve their own pronunciation skills. According to Levis (2018), models can be provided through various sources, including native speakers, recordings, and multimedia materials. Teachers can use videos, podcasts, and other online resources to provide learners with authentic models of pronunciation. Another effective strategy for teaching pronunciation is the use of explicit

instruction. Teachers can teach students the phonetic alphabet and focus on the differences between English sounds and those in the students' native language (Derwing & Munro, 2018). By providing learners with explicit instruction, they can understand how English sounds are produced, and this can help them to improve their pronunciation.

Additionally, teachers can use various techniques to help learners to focus on their own pronunciation. One technique is the use of minimal pairs, where students learn to distinguish between two sounds that are similar but have different meanings, such as "sheep" and "ship" (Grant & Nesse, 2019). By practicing minimal pairs, learners can improve their perception and production of sounds. Moreover, teachers can use technology to enhance their students' pronunciation skills. For example, speech recognition software can provide learners with feedback on their pronunciation accuracy (Bae & Kim, 2017). Teachers can also use pronunciation apps and online resources to provide learners with additional practice and feedback. In conclusion, teaching pronunciation to EFL students requires a variety of effective strategies, including the use of models, explicit instruction, minimal pairs, and technology. By incorporating these strategies into their instruction, EFL teachers can help learners to improve their pronunciation skills and communicate more effectively in English.

2.5.1 Phonetic Challenges in Late Second Language Acquisition

Acquiring a second language during the post-operative cognitive stage of development can present significant phonetic challenges for learners. At this stage, learners have already developed the phonological system in their first language; therefore, they may have difficulty acquiring new phonological distinctions in their second language. One of the most significant challenges for learners during the post-operative cognitive stage is the acquisition of phonemic

contrasts. Learners may struggle to differentiate between sounds that are similar in their first language but distinct in their second language. For example, Japanese learners of English may have difficulty distinguishing between /r/ and /l/ sounds, as these sounds do not exist in the Japanese language (Kubozono, 2017). This can lead to miscommunication and difficulty in understanding spoken language.

Another challenge for learners during the post-operative cognitive stage is the acquisition of new phonological rules. Learners may struggle to produce and perceive new phonological rules in their second language due to interference from their first language. For example, Spanish learners of English may have difficulty producing the /θ/ and /ð/ sounds, as these sounds do not exist in the Spanish language (Hualde, 2017). This can lead to accented speech and difficulty in communicating effectively with native speakers.

Moreover, learners during the post-operative cognitive stage may have difficulty in achieving native-like pronunciation. This is because learners may have already developed strong phonological patterns in their first language, and it may be challenging to acquire new sounds and patterns in their second language. Research has shown that learners who start learning a second language after puberty are less likely to achieve native-like pronunciation than those who start earlier (Flege & Liu, 2017). Acquiring a second language during cognitive maturity can present significant phonetic challenges for learners. Learners may struggle with the acquisition of phonemic contrasts, new phonological rules, and achieving native-like pronunciation. To overcome these challenges, learners need to receive targeted instruction and practice to improve their phonetic skills.

2.5.2 Pronunciation Teaching Theories

Pronunciation teaching theories are fundamental to understand how to teach pronunciation effectively to English as a Foreign Language (EFL) learners, as they provide language teachers with a framework for teaching pronunciation effectively. These theories offer different perspectives on how to approach pronunciation teaching, including focusing on individual sounds and symbols, suprasegmental features such as stress and intonation, communication, and learner-centered approaches. By understanding these theories, teachers can adapt their teaching methods to meet the needs of their learners and create a more effective and engaging learning environment that helps learners to achieve their language goals.

The first theory is the Suprasegmental Approach, which focuses on features such as stress, rhythm, and intonation. This approach emphasizes the importance of the overall pattern of the spoken language and how it conveys meaning (Derwing & Munro, 2018). The Suprasegmental Approach assumes that meaning is conveyed not only through individual sounds, but also through their arrangement and intonation.

The second theory is the Communicative Approach, which focuses on the use of language in communication rather than on the accuracy of individual sounds or patterns. This approach emphasizes the importance of functional language use and communication, with pronunciation being a part of that communication (Grant & Nesse, 2019). The Communicative Approach assumes that language use is social, and that the ultimate goal of language is communication, not the perfection of individual sounds or patterns.

Another theory is the Learner-Centered Approach, which focuses on the individual learner's needs, preferences, and goals. This approach emphasizes the importance of individual

differences in learning and how these differences should be taken into account when teaching pronunciation (Bae & Kim, 2017). The Learner-Centered Approach assumes that each learner is unique, and that teaching pronunciation should be tailored to meet the individual learner's needs.

There are various pronunciation teaching theories that language teachers can draw on when teaching pronunciation to EFL learners. Teachers should carefully consider the goals of their learners and the context in which they are learning to determine the most appropriate approach to teaching pronunciation. When learners listen to correct pronunciation models and then repeat them, they become more aware of the different sounds in the language.

2.5.2.1 Listen and Repeat

The listen and repeat approach can be a useful technique when teaching pronunciation, as it allows learners to hear correct pronunciation models and practice them repeatedly. When learners listen to correct pronunciation models and then repeat them, they become more aware of the different sounds in the language. This can help them develop better listening skills, which is essential for accurate pronunciation. It also increases muscle memory: repetition is key to developing muscle memory for correct pronunciation. The more learners practice repeating sounds, words, and phrases, the more their muscles will become accustomed to producing those sounds accurately. Additionally, learners can have individualized feedback by listening to their own recordings or the feedback from a teacher. Learners can identify specific areas where they need to improve their pronunciation. This feedback can help them focus on specific sounds or words that are difficult for them. Moreover, it can increase their confidence. When learners can hear themselves producing accurate pronunciation, they gain confidence in their ability to speak

the language. This can motivate them to continue practicing and improve their pronunciation further.

2.5.2.2 Listening and Imitating

The listening and imitating approach can be an effective way to teach pronunciation, as it allows learners to hear the sounds of the language and then practice producing them themselves. One way to implement this approach is through modeling the correct pronunciation. The teacher or native speaker should model the correct pronunciation of words and sounds for the learners to imitate. This can be done through audio recordings, videos, or live demonstrations.

Another practice is focusing on individual sounds. The teacher can focus on individual sounds that are difficult for learners to produce. For example, English learners may struggle with the "th" sound, so the teacher can provide multiple examples of words that contain this sound and guide the learners to imitate it. It is important to incorporate authentic materials such as songs, movies, and TV shows that can be used to expose learners to natural pronunciation and intonation patterns. Learners can imitate what they hear in these materials and practice their own pronunciation. Overall, the listening and imitating approach can be a valuable tool in teaching pronunciation because it allows learners to hear and practice the sounds of the language in an interactive and engaging way.

2.5.2.3 Instructional Technology in Teaching Pronunciation

Instructional technology has become an essential tool in language learning classrooms, especially for teaching pronunciation. It offers interactive, personalized, and immediate feedback that can accelerate learners' progress. Computer-Assisted Pronunciation Training (CAPT)

software remains widely used. These programs provide visual and auditory feedback that help learners recognize and correct errors in real time, improving accuracy and fluency (Derwing & Munro, 2015; Lee & Kim, 2017).

Mobile applications also play a significant role by offering accessible, on-the-go practice through interactive exercises and gamification, which increase learner engagement (Wang, 2018). More recent advances include AI-powered pronunciation apps that use speech recognition to provide detailed feedback on intonation, stress, and rhythm (Kukulska-Hulme, 2021). Virtual reality (VR) and augmented reality (AR) technologies have emerged as immersive tools that simulate real-life speaking environments, allowing learners to practice pronunciation in contextualized settings, enhancing both motivation and practical skill application (Parmaxi & Demetriou, 2020). By integrating these evolving technologies, language instructors can provide rich, adaptive learning experiences that cater to diverse learner needs, facilitating better pronunciation outcomes.

2.6 Phonetic Vowels

Phonetic vowels refer to the sounds that are produced when the vocal cords vibrate without any blockage of the airflow in the mouth. According to Crystal (2018), English typically has 20-25 vowel sounds, depending on the dialect. These vowel sounds are represented using the International Phonetic Alphabet (IPA), which is a standardized system for transcribing the sounds of spoken languages. In the IPA, each vowel sound is represented by a unique symbol. For example, the sound of the English "a" in "cat" is represented by the symbol /æ/, while the sound of the English "ee" in "feet" is represented by the symbol /i/. These symbols can be used to transcribe the pronunciation of words in a way that is independent of spelling.

One way to classify vowel sounds is by their position in the mouth. According to Dauer (2019), there are three main categories of vowel sounds: front, central, and back. Front vowels are produced in the front part of the mouth when the front part of the tongue is raised towards the hard palate, while back vowels are produced in the back part of the mouth when the back of the tongue is raised towards the soft palate. Central vowels are produced in the central part of the mouth when the central part of the tongue is raised towards the mid palate. For example, the English "i" in "bit" is a front vowel, while the English "o" in "dog" is a back vowel.

Vowel sounds play a crucial role in the pronunciation of words in English and other languages. The International Phonetic Alphabet provides a standardized system for transcribing these sounds, and they can be classified based on their position in the mouth and their quality. Understanding the different vowel sounds and how they are produced can help learners improve their pronunciation skills.

2.6.1 Monophthongs

Monophthongs are single vowel sounds that do not change in quality or quantity during their production. According to Roach (2018), monophthongs are the simplest vowel sounds in the English language and are produced with a relatively stable tongue position. There are typically 12 monophthongs in Standard Southern British English, which is the most widely recognized accent of English.

2.6.1.1 Tense and lax Monophthongs

Tense and lax monophthongs are two categories of vowel sounds in English phonetics. According to Giegerich (2011), tense monophthongs are characterized by greater muscular

tension and longer duration than lax monophthongs. In addition, tense vowels tend to occur in stressed syllables, while lax vowels tend to occur in unstressed syllables. There are several tense monophthongs in English, including /i/ (as in "meet"), /e/ (as in "mate"), /u/ (as in "moon"), and /o/ (as in "boat") (Crystal, 2011). These vowels are produced with a higher degree of muscle tension in the tongue and other articulators, resulting in a longer and more pronounced sound.

In contrast, lax monophthongs are characterized by less muscular tension and shorter duration (Giegerich, 2011). According to Crystal (2011), some examples of lax monophthongs in English include /ɪ/ (as in "hit"), /æ/ (as in "cat"), /ʊ/ (as in "put"), and /ɒ/ (as in "not"). These vowels are produced with less tension in the tongue and other articulators, resulting in a shorter and less pronounced sound. Overall, tense and lax monophthongs play an important role in English phonetics and can help distinguish between words and convey meaning (Crystal, 2011). By understanding the characteristics of these vowel sounds, speakers can improve their pronunciation and communication skills.

2.6.2 How to teach Phonetic Vowels

Teaching phonetic vowels can be challenging; however, there are several effective strategies that educators can use to help students learn these sounds, starting with introducing the International Phonetic Alphabet (IPA). The IPA is a system of phonetic notation that uses a symbol for each sound in human language. It is commonly used to teach phonetics and can help students understand the differences between vowel sounds. Introducing the IPA early in the learning process can help students become familiar with the symbols and learn how to produce the sounds associated with them.

Another useful resource is the use of visual aids such as pictures, diagrams, or videos, which can help students understand how to produce vowel sounds correctly. For example, a diagram showing the position of the tongue and lips for each vowel sound can be helpful. Videos of native speakers producing different vowel sounds can also be beneficial. In addition, teachers can use minimal pairs, which are words that differ by only one sound. Using minimal pairs can help students distinguish between similar vowel sounds that may be confusing. For example, "ship" and "sheep" are minimal pairs that differ only by the vowel sound. Overall, teaching phonetic vowels requires a combination of visual aids, practice, and engaging activities. By using these strategies, educators can help students master the differences of vowel sounds and improve their pronunciation skills.

2.7 Reading in EFL classrooms

Reading is a crucial skill for learners of English as a foreign language (EFL), as it provides them with access to a vast amount of information and knowledge. To effectively teach reading in EFL classrooms, teachers should incorporate a variety of reading materials, such as authentic texts, graded readers, and digital resources. Pre-reading activities, such as predicting and activating prior knowledge, can help learners prepare for the reading task and build their interest in the material. Additionally, teaching reading strategies, such as skimming, scanning, and inferencing, can help learners comprehend the material and improve their reading speed. Moreover, vocabulary development is another important aspect of reading in EFL classrooms. Teachers can use pre-reading activities, such as word webs or concept maps, to introduce key vocabulary and help learners connect new words to their existing knowledge. During reading,

teachers can encourage learners to use context clues to infer the meaning of unfamiliar words and provide opportunities for learners to practice using new words in context.

EFL learners often face some challenges when reading in a foreign language; therefore, it is essential to implement effective strategies for developing reading skills. It is important to emphasize the need for explicit instruction in reading strategies and the importance of providing learners with a variety of reading materials to build their vocabulary and comprehension (Gruba & Hinkelman, 2020). Reading is an essential skill for learners of English as a foreign language, and EFL teachers should strive to incorporate effective reading strategies into their instruction to oversee the challenges.

2.7.1 Phonetic Awareness and Reading

Phonetic awareness is the ability to identify and manipulate sounds in spoken language. It is an essential skill for developing reading proficiency. According to Lyon (2019), Phonological awareness skills serve as a key foundation for children's reading development. Furthermore, understanding the relationship between spoken sounds and written letters is critical for learners of English as a foreign language. Teaching phonetic awareness while reading can be challenging, but there are effective strategies that English as a foreign language teachers can use to support learners' development.

One effective approach to developing phonetic awareness and improving reading skills is phonics instruction, which systematically teaches the relationships between sounds (phonemes) and their corresponding letters or letter combinations (graphemes). This method helps learners decode unfamiliar words by sounding them out, rather than relying solely on memorization.

According to Ehri and McCormick (2019), phonics instruction is particularly beneficial for English as a Foreign Language (EFL) learners who may be unfamiliar with English's complex and often inconsistent spelling-sound patterns. By explicitly teaching these correspondences, phonics enables learners to build a strong foundation for accurate word recognition and fluent reading, which ultimately supports their overall language acquisition and literacy development.

2.7.2 Active Reading to Improve Pronunciation

Active reading is a technique that can be used to improve pronunciation in EFL learners. By actively engaging with the text and paying attention to the sounds of the language, learners can develop their ability to produce and distinguish sounds accurately. One effective strategy for active reading to improve pronunciation is reading aloud. When learners read aloud, they are forced to pay attention to the sounds of the words and their own production of those sounds. Another strategy for active reading is using phonetic symbols to identify and distinguish sounds. By using the International Phonetic Alphabet (IPA), learners can learn to identify and produce the sounds of English accurately. According to Roach (2019), IPA provides a systematic way to represent the sounds of English and can help learners develop their ability to distinguish and produce sounds accurately.

Additionally, learners can use resources such as audio recordings or pronunciation guides to support their active reading practice. By listening to native speakers and comparing their own production to the correct pronunciation, learners can develop their ability to produce sounds accurately. As stated by Underhill (2015), using audio recordings or pronunciation guides can help learners develop their ear for the sounds of English and support their development of accurate pronunciation.

Active reading is a valuable technique for improving pronunciation in learners of English as a foreign language. Strategies such as reading aloud, using phonetic symbols, and using audio recordings or pronunciation guides can help learners develop their ability to produce and distinguish sounds accurately. By incorporating active reading into their language learning practice, learners can make significant progress in their pronunciation skills.

Chapter III

Methodological Framework

This chapter outlines the methodological foundation of the study, detailing the research type, approach, population, instruments, and application strategies used to assess the impact of active reading on the pronunciation of monophthong vowel sounds in fifth grade students. It begins by justifying the use of a mixed methods design combining action research with a quasi-experimental approach, followed by a description of the selected population and sampling procedures. The chapter also explains the instruments developed for data collection, including a pre-test, post-test, and a self-assessment checklist. Finally, it describes the phases of the intervention, highlighting the implementation of three core strategies, Listen and Repeat, Reading Aloud, and Imitation and Echo Reading, and concludes with the data organization and analysis plan that will guide the evaluation of results.

3.1 Type of Research

This research was designed to evaluate the impact of active reading on the pronunciation of monophthong phonetic vowels in fifth-grade students at Escuela Líder La Aurora. Since the goal is to explore and measure improvement in a specific area of language, a **mixed-methods approach** was chosen. This means the study will include both quantitative and qualitative elements to get a more complete picture of how students develop. Using mixed methods is helpful because it combines the strengths of both types of research.

The quantitative part of the research includes a pre-test and post-test to evaluate students' pronunciation before and after the intervention. These are not designed to pressure students, but rather to track their progress and help identify where they may need more support. Dörnyei

(2007) points out that “*quantitative research is particularly useful for assessing learning outcomes in a structured and replicable way*” (p. 32), which supports the use of these tests. The qualitative part will be based on student self-assessment and reflections. This allows students to express how confident they feel and how they perceive their own improvement. Emotional aspects like motivation and self-perception are important in language learning, and qualitative methods help capturing them. As Mackey and Gass (2016) explain, “*qualitative data provide rich descriptions of learners’ attitudes and behaviors, which are often inaccessible through quantitative means alone*” (p. 9). By combining both methods, the study can offer a broader and more meaningful view of how active reading influences pronunciation and student engagement.

3.2 Type of Approach and Method

The methodological approach selected for this research combines action research with a quasi-experimental design. Action research was chosen due to its relevance in educational settings, where the primary aim is not only to generate knowledge, but also to improve classroom practices and student outcomes. According to Burns (2010), action research involves a reflective and systematic process conducted by the teacher as part of the research setting. In this case, the project seeks to implement active reading strategies that support pronunciation development and, at the same time, observe and reflect on their effectiveness within a real classroom environment.

The quasi-experimental component is integrated to allow for a structured comparison between students’ performance before and after the intervention. As Creswell and Creswell (2018) explain, quasi-experiments are used when random assignment is not possible, yet there is still an intention to measure cause-effect relationships between variables. In this study, a single group will be exposed to the intervention, and changes in pronunciation will be assessed using a

pre-test and post-test design. Although the research lacks a control group and randomization, two features typically present in true experimental designs, it is still methodologically sound within the context of a school-based study. The design allows for observing meaningful changes over time and offers practical insights into how active reading can influence the development of monophthong vowel pronunciation. This aligns with the purpose of classroom-based inquiries, which focus on the improvement of specific teaching strategies while considering the natural classroom dynamics. Therefore, this mixed-method strategy, drawing from both action research and quasi-experimental methods, ensures that the investigation not only produces useful findings but also respects the educational context and promotes student-centered learning.

3.3 Population and Sampling

The selected population for this research consists of 5th grade students at Escuela Líder La Aurora, located in Heredia, Costa Rica. This is a public school and its students mainly come from Spanish-speaking backgrounds, which adds an important linguistic context to the study. Since these students are in the early stages of English learning, they often face challenges with pronunciation, especially with vowel sounds that do not exist in their native language. For the purpose of this study, one specific group of 19 students will be selected. The sampling is non-probabilistic and intentional, as it is based on the availability and accessibility of the group within the institution. Although the researcher has not yet had direct interaction with the students, communication and coordination have been established with the English teacher in charge of the class. The group will be introduced to the project at the beginning of the process and will participate in all stages of the intervention, including the pre-test, active reading activities, and post-test.

3.4 Instruments

Instruments are essential the tools used to collect information in a structured and consistent way during a research process. As defined by Mertler (2017), instruments are "the devices and procedures used to gather, measure, and analyze data relevant to the research problem" (p. 110). They help ensure that the data gathered is relevant, measurable, and aligned with the objectives of the study. In educational research, instruments are especially important to evaluate both the learning outcomes and the students' experiences throughout the intervention. For this study, three instruments will be applied: a pre-test, a post-test, and a student self-assessment checklist. Each of these tools was selected based on the specific needs of the research. The pre-test and post-test will be used to measure students' pronunciation of English monophthong vowel sounds, specifically: /æ/, /ɛ/, /ɪ/, /ʌ/, /ɑ/, /i/, /ɔ/, /u/, and /ʊ/. These sounds were selected due to their relevance in basic English vocabulary and the common pronunciation challenges they represent for Spanish-speaking learners.

The tests will facilitate the comparison and identification of improvements in pronunciation after the intervention. These assessments are adapted to the students' age and language level to ensure clarity and accessibility. Additionally, a pronunciation assessment rubric will be used to evaluate oral production based on clear and consistent criteria. Finally, the student self-assessment checklist will provide insight into how students perceive their own progress and confidence, since it is intended to be included prior to the active reading techniques, same as the pre-test and post-test. The combination of these instruments supports both quantitative and qualitative analysis, and they offer a broader understanding of the learning process and its impact.

3.4.1 Pre-test

A pre-test is an assessment administered prior to the intervention or instructional program. Its main purpose is to establish a baseline measurement of participants' skills or knowledge related to the study's objectives. According to Fraenkel, Wallen, and Hyun (2012), pre-tests are used "to determine the initial status of the participants with respect to the dependent variable" (p. 272). In this research, the pre-test is designed to evaluate the students' pronunciation of specific English monophthong vowel sounds before the active reading activities begin.

The pre-test consists of two parts: "Isolated Words" and "Sentences in Context." In the first part, students will be asked to read aloud 10 individual words that contain the targeted monophthong vowel sounds: cat, bed, sit, sun, book, hat, car, tree, food, and horse. In the second part, students will read six short sentences aloud, each containing one or more of the targeted vowel sounds. These sentences are carefully selected to include the sounds /æ/, /ɛ/, /ɪ/, /ʌ/, /ɑ/, /i/, /o/, /u/, and /ɔ/ in meaningful and age-appropriate contexts. The students' pronunciation will be assessed using a rubric that evaluates the accuracy of vowel sound production. The rubric categorizes pronunciation into three levels: Accurate, Approximate, and Incorrect, based on the clarity and correctness of the target vowel sounds.

Table 1. Pronunciation Assessment Rubric

Item	Monophthong	Accurate: <i>Clear and correct pronunciation of target vowel sound(s). Words: 1 sound. Sentences: 2–3 sounds accordingly.</i>	Approximate: <i>Minor mispronunciation of vowel sound(s), close to target. Words: 1 sound. Sentences: 1–2 sounds accordingly.</i>	Incorrect: <i>None of the vowel sound(s) pronounced correctly or replaced.</i>	Comments (optional)
cat	/æ/				
bed	/ɛ/				
sit	/ɪ/				
sun	/ʌ/				
book	/ʊ/				
hat	/æ/				
car	/ɑ/				
tree	/i/				
food	/u/				
horse	/ɔ/				
Sentence 1: “The cat sat on the mat .”	/æ/ /æ/				
Sentence 2: “The sun is hot .”	/ʌ/ /ɑ/				
Sentence 3: “I do not like green eggs and ham .”	/i/ /ɛ/ /æ/				
Sentence 4: “The bus is red and full .”	/ʌ/ /ɛ/ /ʊ/				

Sentence 5: /ʊ/ /ʊ/ /æ/
“He **put** the **book** in
the **bag**.”

Sentence 6: /æ/ /i/ /u/
“**Sam** could **see** the
moon.”

Note. Rubric created by the researcher

3.4.2 Post-test

A post-test is an evaluation applied after the implementation of an instructional intervention. Its purpose is to measure what participants have learned and to determine the effectiveness of the applied strategy (Fraenkel et al., 2012). In this research, the post-test will be used to assess students’ pronunciation of monophthong vowel sounds after active reading activities. The same format used in the pre-test will be applied in order to ensure consistency in the evaluation process. Students will be asked to read aloud the same list of words and sentences, and their pronunciation will be evaluated using the rubric presented in section 3.4.1. The comparison between pre- and post-test results will help to identify improvement in pronunciation, particularly in terms of clarity, accuracy, and articulation. Students will be informed that this is not a graded test, but rather an opportunity to observe their own progress and recognize how their pronunciation has developed.

3.4.3 Student Self-Assessment Checklist

In addition to the objective evaluation provided by the pre-test and post-tests, students will complete a self-assessment checklist to reflect on their own learning experience. This instrument uses simple visuals, emojis representing happy, neutral, and confused feelings, to help students indicate how they feel about their pronunciation skills at two key moments: after the

pre-test and after the post-test. The purpose of this tool is to gather insight into students' self-perception and confidence in relation to English pronunciation. Since emotional engagement is a crucial part of language learning, this brief self-assessment will provide valuable qualitative information that complements pronunciation scores. Moreover, the data collected will be analyzed and compared with students' actual performance to explore the relationship between their perceived progress and measurable improvement.

Table 2

Student Self-Assessment Checklist

Circle students' choice	(Happy)	(Neutral)	(Confused)
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Note. Table created by the researcher to help students express their self-perception after each test.

3.5 Application Strategies

The intervention will be conducted during the second quarter of 2025 within regular English class hours at Escuela Líder La Aurora. The application process is structured into distinct phases to ensure a well-organized, student-centered, and pedagogically sound implementation. First, an initial planning and introduction phase will take place to coordinate logistics with the English teacher and prepare students for the upcoming activities. Following this, the core instructional phase will consist of active reading activities designed to develop students' pronunciation of monophthong vowel sounds. The implementation of these activities will include three main strategies: Listen and Repeat, Reading Aloud, and Imitation and Echo

Reading. These strategies will be delivered progressively, aiming to engage students in a motivating and supportive learning environment that naturally integrates into their English lessons.

3.5.1 Planning and Introduction to the Intervention

Before beginning the actual intervention, the researcher will first meet with the Director of Escuela Líder La Aurora to formally request permission to conduct the study with the fifth-grade students. Following this, a meeting will be held with the group's English teacher to coordinate the schedule and plan the necessary class sessions for the research. Once these preparations are completed, a brief introduction will be given to the students to explain that they will be participating in special reading activities designed to improve their pronunciation. This explanation will be delivered in a clear, positive, and age-appropriate manner to foster motivation and ensure that students do not feel pressured.

3.5.2 Implementation of Active Reading Activities

This phase will take place over the course of three class sessions. During this time, students will be engaged in a structured yet playful sequence of reading and pronunciation activities that are smoothly integrated into their regular English lessons. The objective is to foster the development of pronunciation skills, specifically monophthong vowel sounds, without overwhelming learners. Each session will be brief, lasting approximately 30 minutes, and carefully adapted to the cognitive and emotional needs of fifth-grade students. All active reading

activities in this phase will focus on practicing and reinforcing the pronunciation of the selected monophthong phonetic vowels: /æ/, /ɛ/, /ɪ/, /ʌ/, /ɑ/, /i/, /ʊ/, /u/, and /ɔ/. These vowel sounds were chosen for their relevance to the students' learning level and their presence in the vocabulary used throughout the intervention.

In the first class, students will complete the pre-test and an initial self-assessment checklist to reflect on their current pronunciation skills. Following that, the session will introduce the first instructional activity based on the Listen and Repeat strategy. The second class will focus on the Reading Aloud technique, gradually incorporating the target vowel sounds into short phrases and connected speech. In the third and final session, students will work with the Imitation and Echo Reading approach and then, they will complete the post-test and final self-assessment, providing both closure and reflection on their learning experience.

Throughout the intervention, activities will be designed to be interactive and varied, including opportunities for individual participation, pair work, and small-group dynamics. Storytelling elements, pronunciation games, and repetition exercises will be integrated, when possible, to maintain engagement and build confidence. The overall classroom atmosphere will aim to be relaxed and supportive, encouraging students to experiment with their pronunciation, learn from mistakes, and gradually improve. The strategies implemented during this phase, Listen and Repeat, Reading Aloud, and Imitation and Echo Reading, were selected for their relevance and effectiveness in supporting young learners' pronunciation development in a natural and enjoyable manner.

3.5.2.1 Listen and Repeat

This is one of the most traditional yet effective strategies in teaching pronunciation, particularly among young learners. According to Celce-Murcia et al. (2010), “*listen and repeat drills help students to internalize the sounds of the language and develop their pronunciation skills through imitation and controlled practice*” (p. 45). It involves modeling the correct pronunciation of individual words and asking students to repeat them aloud. In this intervention, the focus is on words that contain monophthong vowel sounds, allowing students to isolate and practice these sounds with clarity. Repetition is first done chorally to help students build confidence and familiarity with the sounds, and then individually for those who feel ready. This method supports the training of both the ear and vocal muscles, establishing a natural connection between listening and producing the sounds accurately.

To support the implementation of this strategy, an activity will be conducted. The objective of the activity is to introduce and reinforce the articulation of monophthong vowels through visual and auditory cues. The materials include flashcards that feature the English word, a corresponding image, and the IPA symbol for the target vowel. These cards will be displayed on the board or classroom wall, providing visual context and reference. The target word list includes two examples per vowel sound, as follows:

- /æ/: *cat, bag*
- /ɛ/: *bed, pen*
- /ɪ/: *fish, pig*
- /ʌ/: *cup, bus*

- /ɑ: *car, father*
- /i/: *feet, tree*
- /ʊ/: *book, look*
- /u/: *moon, spoon*
- /ɔ/: *horse, north*

The researcher will introduce each flashcard, pronounce the word clearly, and model the corresponding vowel sound. Students will repeat each word as a group and then individually, paying close attention to mouth position, sound clarity, and accuracy. Visual modeling and phoneme cards may also be used to assist students in recognizing sound articulation. As a variation to increase student engagement, the activity will conclude with a memory game. Flashcards will be taped to the board in random order. Students will take turns identifying and matching pairs of words that share the same vowel sound (e.g., *fish* and *pig* for /ɪ/). This interactive component encourages not only repetition but also phonemic awareness, discrimination, and pattern recognition in a fun and motivating way.

3.5.2.2 Reading Aloud

Reading aloud is a well-established technique in language learning that helps students connect the recognition of written words with their accurate pronunciation within meaningful contexts. This practice supports the development of learners' awareness of sound patterns in language and boosts their confidence when speaking. Nation and Newton (2009) emphasize that reading aloud fosters a stronger connection between reading and speaking skills, which contributes to improved phonological awareness and greater self-assurance in oral

communication. In this study, reading aloud activities will be conducted in small groups, using short texts carefully selected or adapted to contain frequent use of the targeted monophthong vowel sounds: /æ/, /ɛ/, /ɪ/, /ʌ/, /ɑ/, /i/, /ʊ/, /u/, and /ɔ/. The two texts to be used include an original short story, A Day on the Farm, and an extract from Green Eggs and Ham by Dr. Seuss (2019).

The A Day on the Farm story reads as follows:

Sam the cat sat in the barn.

The sun was hot, but the horse was happy.

He ran with the dog and jumped over a log.

A hen pecked the ground next to the net.

Sam could see the moon and stars begin to shine.

“What a fun day,” he said, and fell asleep.

The extract from Green Eggs and Ham is:

I do not like green eggs and ham.

I do not like them, Sam-I-am.

I do not like them in a box.

I do not like them with a fox.

I will not eat them in the rain.

I will not eat them on a train.

I will not eat them in a house.

I will not eat them with a mouse.

(Seuss, 1960)

These texts will be printed as handouts with the target vowel words bolded and underlined to help students focus on the sounds during reading.

During the activity, students will be divided into groups of four to five members and will read the assigned text aloud collaboratively for approximately five minutes without the researcher intervention. Afterwards, the researcher will circulate among the groups to provide support using phoneme cards and pronunciation guidance as needed. Once the first text is completed, groups will exchange texts and repeat the reading process. To conclude, each group will be invited to read their text aloud to the entire class. This structured, peer-supported approach encourages visual reinforcement, oral practice, and increases student confidence in pronunciation.

3.5.2.3 Imitation and Echo Reading

Imitation and echo reading is a pronunciation strategy that encourages students to closely mimic the rhythm, intonation, and articulation of a model speaker. This technique supports learners in internalizing accurate vowel sounds, while also developing the natural flow and musicality of spoken English. By listening carefully and repeating phrases immediately after the model, students enhance both their phonetic precision and their ability to perceive subtle differences in sound, which is essential when distinguishing similar-sounding words (Nation & Newton, 2009).

In this research, the activity will be implemented in two parts during a single session. First, students will participate in a rhythmic warm-up using an engaging video that focuses on syllable stress and clapping patterns to prepare their vocal organs and attention to prosody. Next, students will practice echo reading by watching a video of *The Cat in the Hat* read aloud by a native speaker. The video will be paused after each line to allow students to repeat the phrase as closely as possible to the original pronunciation, rhythm, and intonation. This scaffolded approach combines listening and speaking practice in a supportive, interactive environment, helping students develop confidence and accuracy in their pronunciation.

Materials used include internet access with speakers and two video resources: a warm-up video titled “Rhythm Syllables Clap Along for Kids” (YouTube, 2023) to practice syllable stress, and the read-aloud video of *The Cat in the Hat* (Seuss, 1957; YouTube, 2023) to guide echo reading. The researcher will facilitate the session by managing video playback and providing encouragement, as well as monitoring student participation to offer individual support when necessary.

3.6 Data Organization and Analysis

To assess the effectiveness of the intervention and determine the impact of the active reading activities on students’ pronunciation of monophthong vowel sounds, both qualitative and quantitative data will be collected and organized systematically. The main sources of data will be the pre-test and post-test results, as well as the student self-assessment checklists applied before and after the intervention.

Test results will be organized using a simple scoring system based on the rubric designed for this research. Each student’s pronunciation accuracy will be categorized as *accurate*,

approximate, or *incorrect* for each word in the test. These results will be entered into a spreadsheet, allowing for an organized comparison between pre-test and post-test outcomes. The researcher will look for trends in pronunciation improvement, particularly in the nine monophthong vowel sounds targeted by the intervention: /æ/, /ɛ/, /ɪ/, /ʌ/, /ɑ/, /i/, /ʊ/, /u/, and /ɔ/.

The self-assessment checklist will be analyzed qualitatively to gain insight into the students' perceptions of their own progress. The comparison between responses before and after the intervention will help the researcher interpret not only the effectiveness of the instruction, but also the emotional and motivational impact of the activities on learners. The data gathered will be used to draw conclusions about the value of active reading strategies in supporting young learners' pronunciation development and to identify possible areas of improvement for future implementations.

Chapter IV

Data Analysis

This chapter presents the analysis of data collected through pre-test and post-test assessments aimed at evaluating the pronunciation of monophthong phonetic vowels in sixteen fifth-grade students at Escuela Líder La Aurora. The chapter is structured to systematically present the results obtained from pronunciation tasks involving isolated words and complete sentences, as well as from students' self-assessments of their confidence. The presentation focuses on descriptive data, organized with supporting visual aids such as bar charts, to provide a clear and objective overview of the students' phonetic performance before and after the instructional intervention.

4.1 Analysis and Interpretation of the Results

The data analysis focuses on comparing students' pronunciation accuracy of monophthong phonetic vowels before and after engaging in active reading activities. Evaluation categories, accurate, approximate, and incorrect pronunciations, were consistently applied to both isolated words and connected speech in sentences. The findings are presented descriptively to illustrate changes in pronunciation proficiency and self-assessed confidence, with visual representations to facilitate comprehension. This section lays the groundwork for understanding the impact of the instructional methods on students' phonetic development, without drawing interpretive conclusions at this stage.

4.1.1 Pre-test

The pre-test was administered to gather baseline data on the pronunciation of monophthong phonetic vowels among sixteen fifth-grade students at Escuela Líder La Aurora. This assessment consisted of two parts: pronunciation of monophthong phonetic vowels in isolated words and in complete sentences. The collected data serves as a reference point to measure changes after the instructional intervention. Student's pronunciations were evaluated using the rubric presented in Chapter III of this investigation, which classifies each word or sentence into three categories: Accurate, for clear and correct pronunciation of the target vowel sound(s); Approximate, for minor mispronunciation, close to the target sound; and Incorrect, for cases in which the vowel sound(s) were pronounced incorrectly or replaced. For isolated words, one vowel sound was assessed, while sentences included two to three vowel sounds accordingly. This rubric allowed a detailed and standardized analysis of pronunciation accuracy in both isolated and contextualized speech.

4.1.1.1 Pronunciation Analysis of Monophthong Phonetic Vowels in Isolated Words

This section provides a detailed analysis of the pronunciation of monophthong phonetic vowels by the participating students, using a carefully selected list of ten isolated words designed to represent nine distinct monophthong vowel sounds. The words analyzed were cat (/æ/), bed (/ɛ/), sit (/ɪ/), sun (/ʌ/), book (/ʊ/), hat (/æ/), car (/ɑ/), tree (/i/), food (/u/), and horse (/ɔ/). Each student's production was assessed following the rubric outlined in Chapter III, with pronunciations categorized as accurate, approximate, or incorrect. The results are presented in bar charts that show the number of students falling into each pronunciation category for every word, allowing a clear visualization of overall performance.

4.1.1.1.1 Pre-test results of phoneme /æ/ in “cat”

The pre-test evaluated students' pronunciation of the monophthong /æ/ in the word “cat.” A total of 5 students produced the phoneme accurately, while 11 students gave an approximant pronunciation. No incorrect pronunciations were recorded.”

Figure 1. Pre-test results of phoneme /æ/ in “cat”

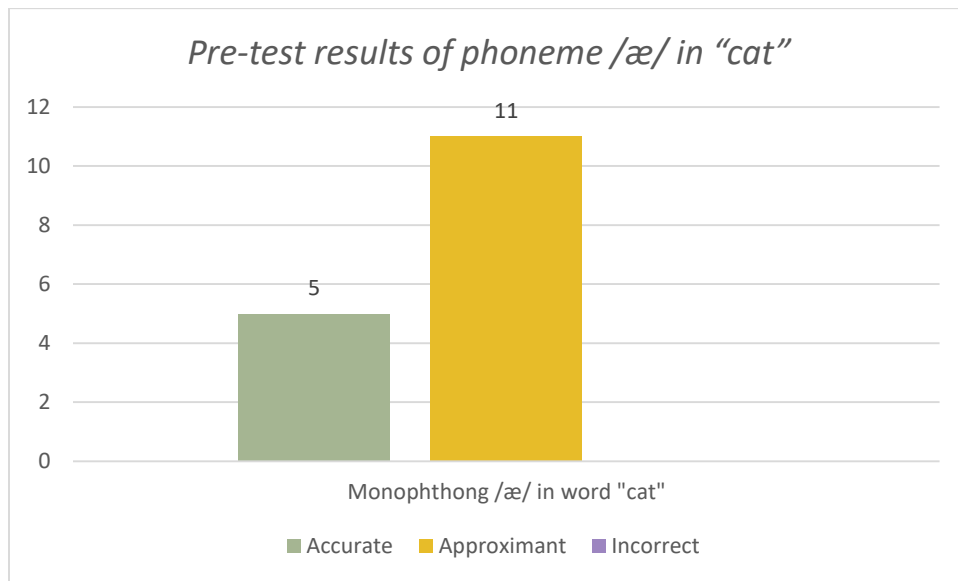


Figure 1. It represents the count of students pronouncing monophthong phonetic vowel /æ/ in isolated word “cat” accurate, approximate, or incorrect. Researcher’s creation.

4.1.1.1.2 Pre-test results of phoneme /ɛ/ in “bed”

The pre-test assessed students’ pronunciation of the phoneme /ɛ/ in the word 'bed.' Nine students articulated the sound accurately, three students produced an approximate version, and four students pronounced it incorrectly.

Figure 2. Pre-test results of phoneme /ɛ/ in “bed”

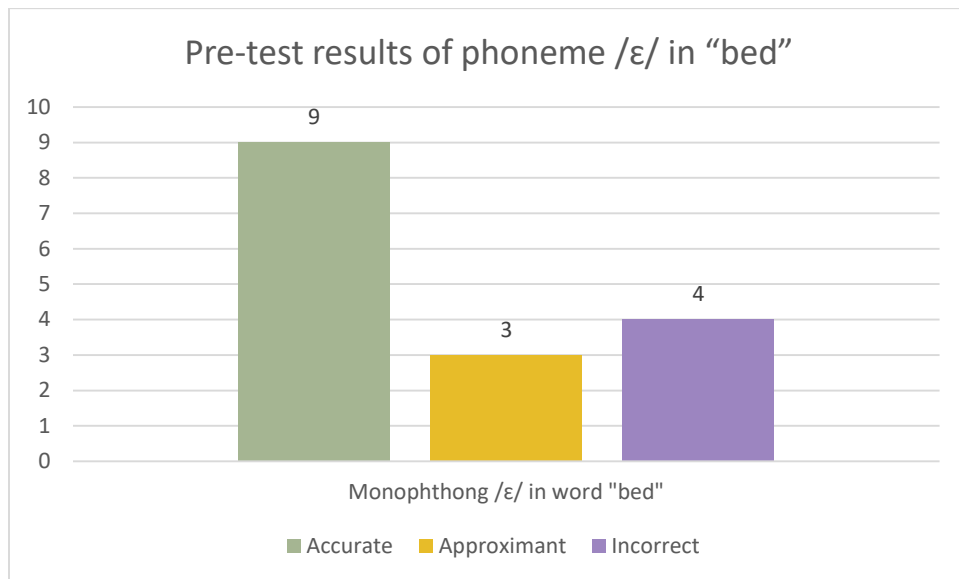


Figure 2. It represents the count of students pronouncing monophthong phonetic vowel /ɛ/ in isolated word “bed” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.3 Pre-test results of phoneme /ɪ/ in “sit”

During the pre-test, students were evaluated on their pronunciation of the phoneme /ɪ/ in the word “sit.” Four students pronounced the sound accurately, eleven produced an approximant pronunciation, and one student produced it incorrectly.

Figure 3. Pre-test results on isolated word “sit”

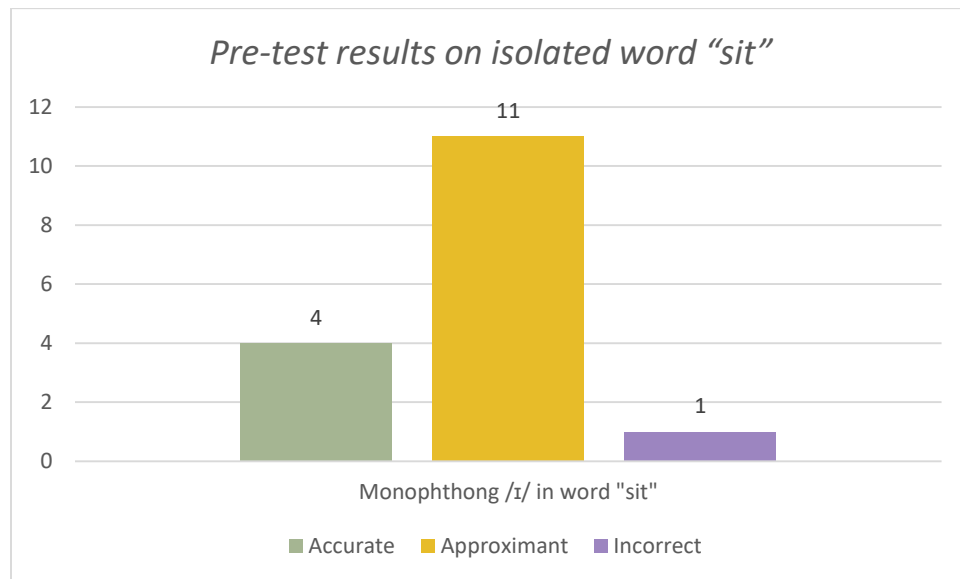


Figure 3. It represents the count of students pronouncing monophthong phonetic vowel /ɪ/ in isolated word “sit” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.4 Pre-test results of phoneme /ʌ/ in “sun”

During the pre-test, students’ production of the phoneme /ʌ/ in the word 'sun' was examined. Four students achieved an accurate pronunciation, nine produced an approximant version, and three students mispronounced the sound.

Figure 4. Pre-test results on isolated word “sun”

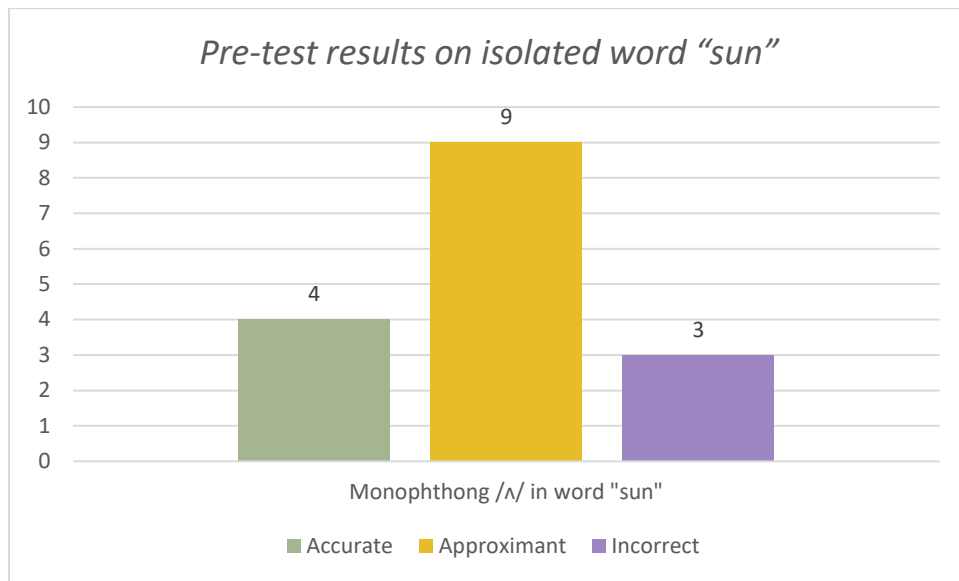


Figure 4. It represents the count of students pronouncing monophthong phonetic vowel /ʌ/ in isolated word “sun” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.5 Pre-test results of phoneme /ʊ/ in “book”

The pre-test also assessed the students’ pronunciation of the phoneme /ʊ/ in the word 'book.' Seven students pronounced the phoneme correctly, four produced an approximate version, and five students pronounced it incorrectly.

Figure 5. Pre-test results on isolated word “book”

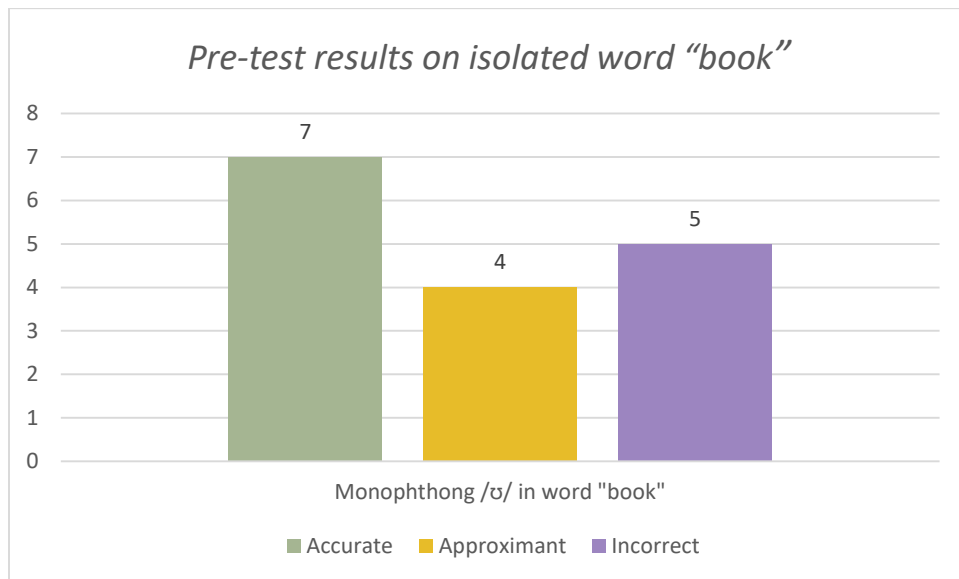


Figure 5. It represents the count of students pronouncing monophthong phonetic vowel /ʊ/ in isolated word “book” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.6 Pre-test results of phoneme /æ/ in “hat”

During the pre-test, students were evaluated on the articulation of the phoneme /æ/ in the word 'hat.' Six students produced the sound accurately, ten produced an approximant pronunciation, and none of the students pronounced it incorrectly.

Figure 6. Pre-test results on isolated word “hat”

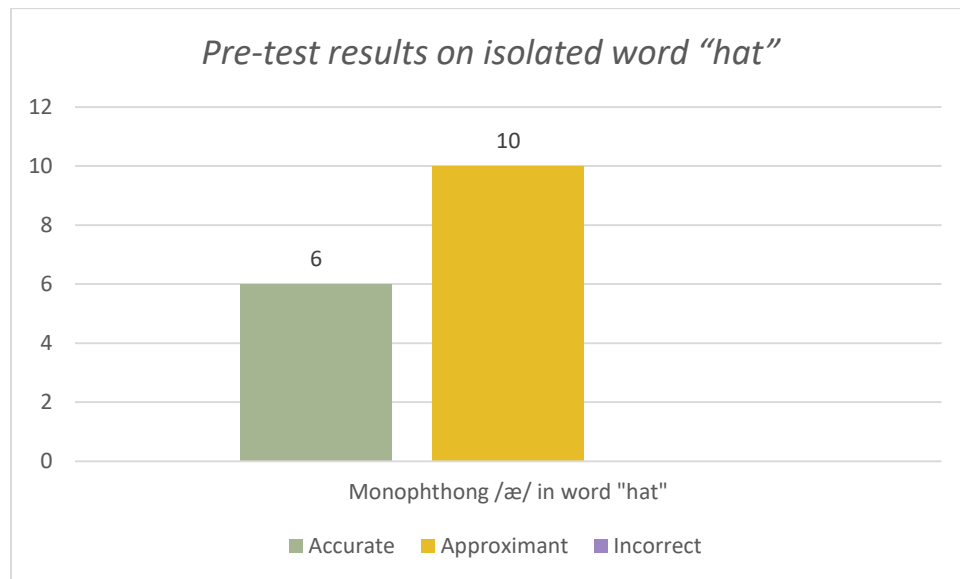


Figure 6. It represents the count of students pronouncing monophthong phonetic vowel /æ/ in isolated word “hat” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.7 Pre-test results of phoneme /ɑ/ in “car”

The pre-test also evaluated the students’ pronunciation of the phoneme /ɑ/ in the word ‘hat.’ Thirteen students articulated the sound correctly, three provided an approximate version, and no incorrect pronunciations were recorded

Figure 7. Pre-test results on isolated word “car”

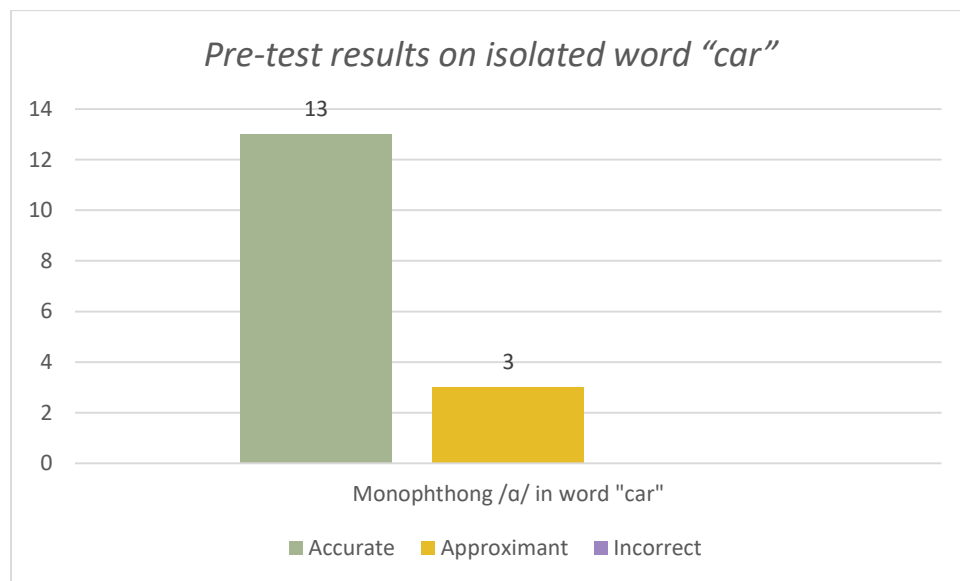


Figure 7. It represents the count of students pronouncing monophthong phonetic vowel /ɑ/ in isolated word “car” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.8 Pre-test results of phoneme /i/ in “tree”

During the pre-test, the students’ production of the phoneme /i/ in the word 'tree' was assessed. Nine students pronounced the sound accurately, one produced an approximant version, and six students mispronounced it.

Figure 8. Pre-test results on isolated word “tree”

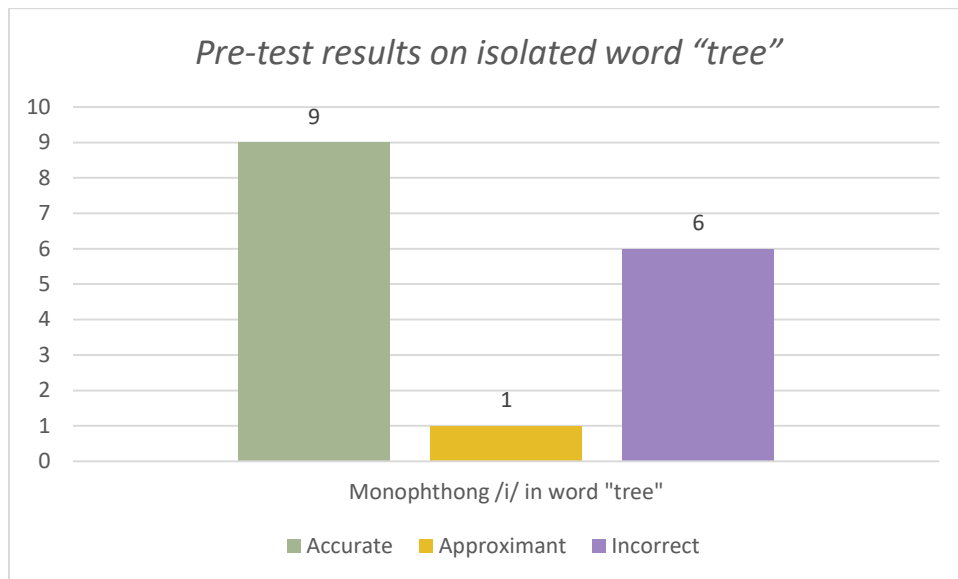


Figure 8. It represents the count of students pronouncing monophthong phonetic vowel /i/ in isolated word “tree” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.9 Pre-test results of phoneme /u/ in “food”

The pre-test evaluated how students pronounced the phoneme /u/ in the word 'food.' Four students produced the sound correctly, four produced gave an approximate pronunciation, and eight students pronounced it incorrectly.

Figure 9. Pre-test results on isolated word “food”

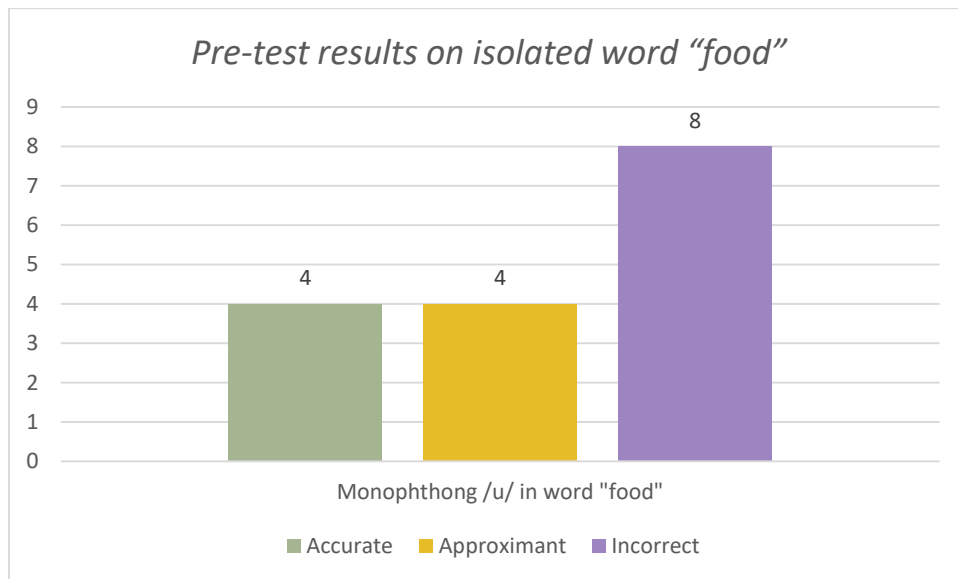


Figure 9. It represents the count of students pronouncing monophthong phonetic vowel /u/ in isolated word “food” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.1.10 Pre-test results of phoneme /ɔ/ in “horse”

During the pre-test, the students’ pronunciation of the phoneme /ɔ/ in the word 'horse' was examined. Nine students articulated the sound accurately, one produced an approximant version, and six students pronounced it incorrectly.

Figure 10. Pre-test results on isolated word “horse”

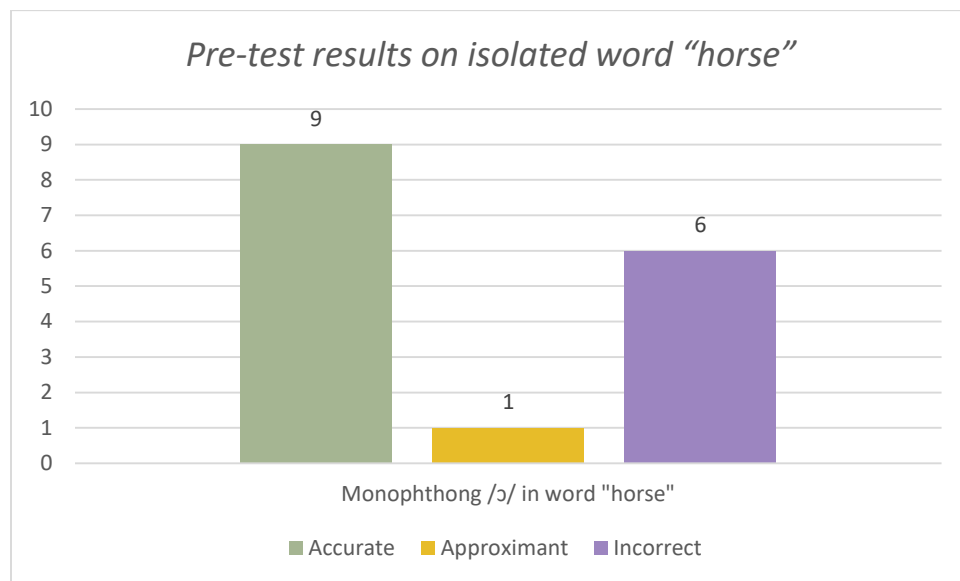


Figure 10. It represents the count of students pronouncing monophthong phonetic vowel /ɔ/ in isolated word “horse” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.2 Pronunciation Analysis of Monophthong Phonetic Vowels in Complete Sentences

This section presents the analysis of students’ pronunciation of monophthong phonetic vowels in complete sentences. The same nine vowel sounds previously examined in isolated words were assessed in this task: /æ/, /ɛ/, /ɪ/, /ʌ/, /ʊ/, /ɑ/, /i/, /u/, and /ɔ/. However, in this section, the target sounds were embedded within connected speech, requiring students to produce them naturally as part of sentence-level pronunciation. Each sentence contained two to three target vowel sounds, and students’ responses were evaluated using the same rubric described in

Chapter III, classifying pronunciations as accurate, approximate, or incorrect. Moreover, to visually represent the findings bar charts have been included to display the distribution of students' responses in the three evaluation categories for each sentence. These visuals offer a clear reference to examine how vowel pronunciation patterns may vary when produced in a more fluid and contextualized linguistic environment.

4.1.1.2.1 Pre-test results on sentence “The cat sat on the mat.”

During the pre-test, students were evaluated on the pronunciation of the monophthong /æ/ within the sentence “The cat sat on the mat.” The specific words assessed for this sound were “cat” and “mat.” Five students pronounced the target sounds accurately, showing a correct articulation of the vowel. Eleven students produced an approximate pronunciation, as the production was close but not fully accurate. Notably, none of the students pronounced the words incorrectly, which suggests a general awareness of the /æ/ sound, even if their pronunciation needed refinement.

Figure 11. Pre-test results on sentence “The cat sat on the mat.”

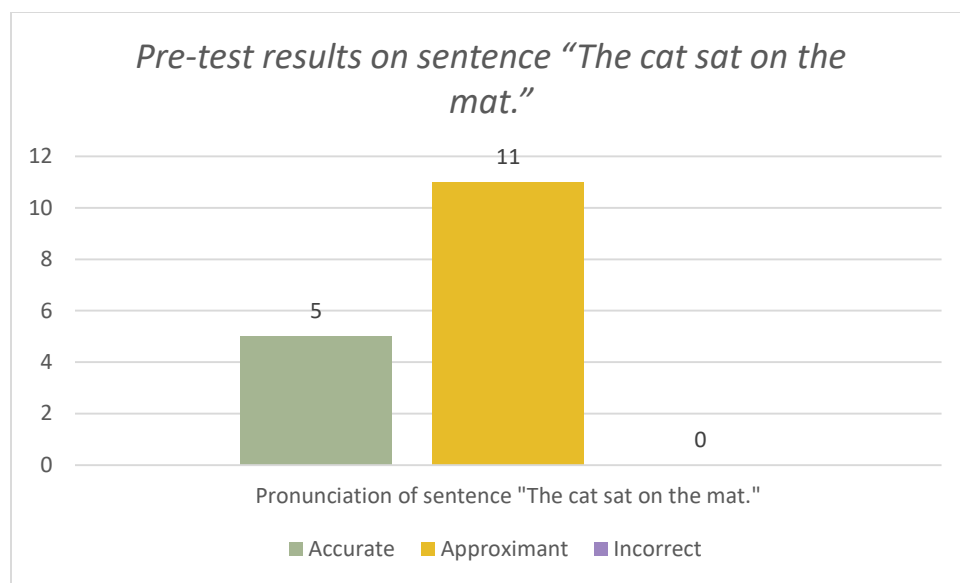


Figure 11. It represents the number of students who pronounced the phoneme /æ/ in the words “cat” and “mat” as accurate, approximate, or incorrect when reading the sentence “The cat sat on the mat.” Researcher’s creation

4.1.1.2.2 Pre-test results on sentence “The sun is hot.”

During the pre-test, students were assessed on their ability to pronounce the monophthong vowels /ʌ/ and /ɑ/ in the sentence “The sun is hot.” The evaluation focused specifically on the words “sun” and “hot,” which contain the target vowel sounds. Out of the total participants, two students produced both vowel sounds accurately, demonstrating clear pronunciation. Nine students produced an approximate pronunciation, indicating a close but not entirely precise articulation. Meanwhile, five students pronounced the sounds incorrectly, suggesting a greater difficulty in distinguishing or reproducing the targeted vowels. These results highlight varying levels of familiarity with the phonemes /ʌ/ and /ɑ/ among the students.

Figure 12. Pre-test results on sentence “The sun is hot.”

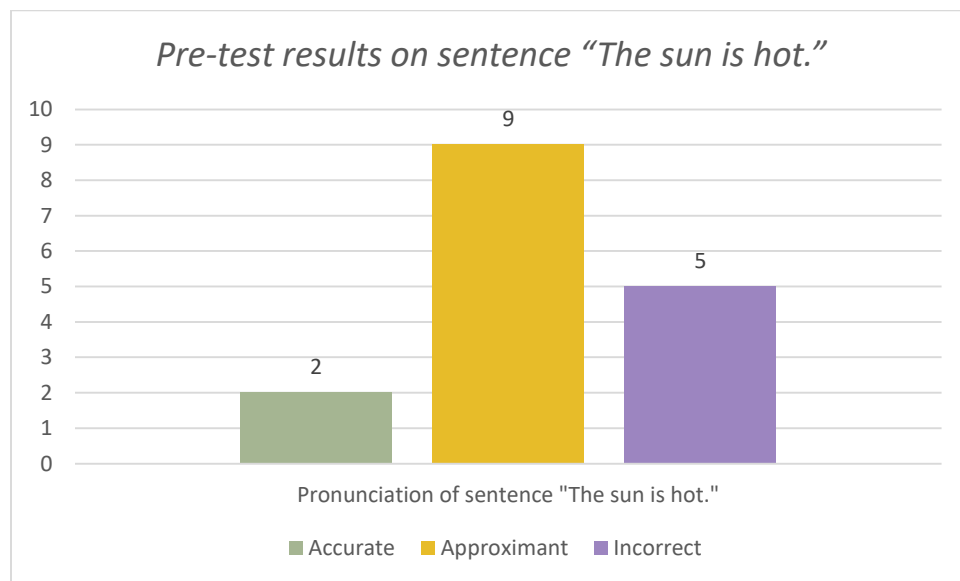


Figure 12. it represents the count of students pronouncing monophthong phonetic vowels /ʌ/ and /ɑ/ found in words “sun” and “hot” when reading full sentence “The sun is hot.” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.2.3 Pre-test results on sentence “I do not like green eggs and ham.”

As part of the pre-test, students were assessed on the pronunciation of the monophthong vowels /i/, /ɛ/, and /æ/ within the sentence “I do not like green eggs and ham.” The evaluation targeted the words “green,” “eggs,” and “ham;” each containing one of the vowel sounds under study. According to the results, five students articulated all three sounds accurately, reflecting clear and correct pronunciation. Six students produced an approximate pronunciation, suggesting a reasonable attempt with minor deviations. The remaining five students pronounced the target sounds incorrectly, indicating a need for further reinforcement. These results reflect a balanced distribution of performance levels in the class, with noticeable room for improvement in vowel sound production.

Figure 13. Pre-test results on sentence “I do not like green eggs and ham.”

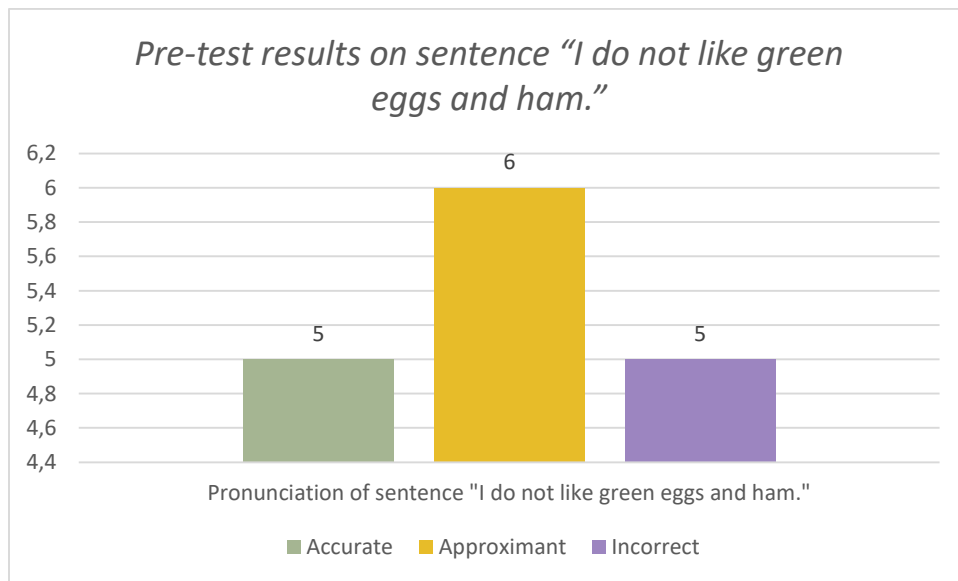


Figure 13. count of students pronouncing monophthong phonetic vowels /i/, /ɛ/, and /æ/ found in words “green”, “eggs”, and “ham” when reading full sentence “I do not like green eggs and ham.” accurate, approximate, or incorrect. Researcher’s creation

4.1.1.2.4 Pre-test results on sentence “The bus is red and full.”

As part of the pre-test, the students’ pronunciation of the monophthong vowels /ʌ/, /ɛ/, and /ɒ/ was analyzed using the sentence “The bus is red and full.” The words chosen to evaluate these specific vowel sounds were “bus,” “red,” and “full.” Two students were able to articulate all target sounds accurately, showing a clear understanding and correct pronunciation. Thirteen students produced an approximate version of the sounds, suggesting that while their attempts were generally close, they lacked full precision. Only one student mispronounced the vowel sounds, indicating a more significant difficulty regarding this particular set of phonemes. Overall, the results suggest a relatively strong familiarity with the target vowels among most students, despite some minor inaccuracies.

Figure 14. Pre-test results on sentence “The bus is red and full.”

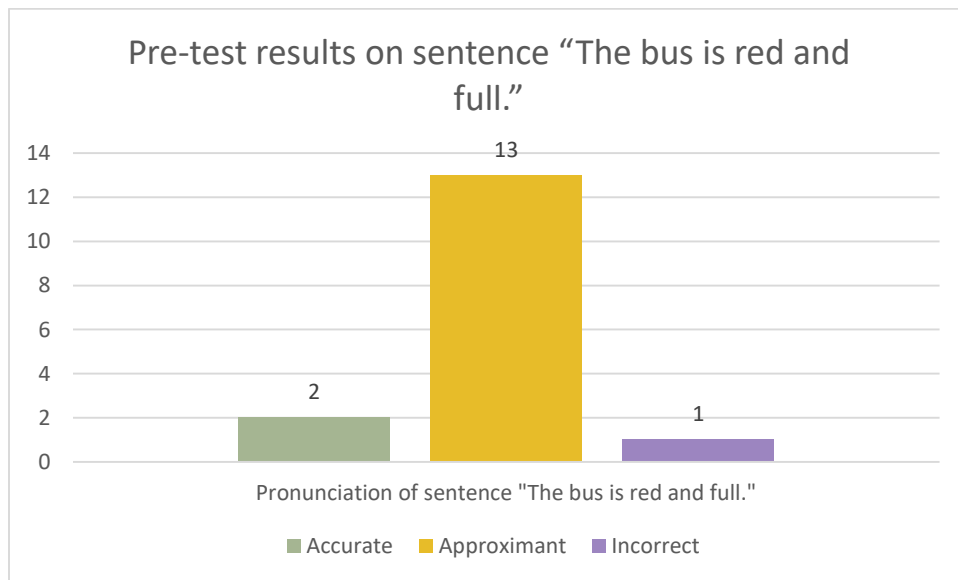


Figure 14. This figure shows the number of students who pronounced the phonemes /ʌ/, /ɛ/, and /ɒ/ in the words “bus,” “red,” and “full” as accurate, approximate, or incorrect while reading the sentence “The bus is red and full.” Researcher’s creation

4.1.1.2.5 Pre-test results on sentence “He put a book in the bag.”

During the pre-test, the students’ articulation of the monophthong vowels /ʊ/, /ʊ/, and /æ/ was evaluated through the sentence “He put a book in the bag.” The analysis focused on the words “put,” “book,” and “bag,” which contained one of the target vowel sounds. Only one student pronounced all three vowels accurately, demonstrating clear and correct articulation. Eleven students produced an approximate pronunciation, indicating they were relatively close but still deviated slightly from the expected sounds. Meanwhile, five students mispronounced the vowels, revealing greater challenges in recognizing or producing these phonemes. These results point to varying levels of proficiency, as the majority of the students showed partial understanding of the sounds in context.

Figure 15. Pre-test results on sentence “He put the book in the bag.”

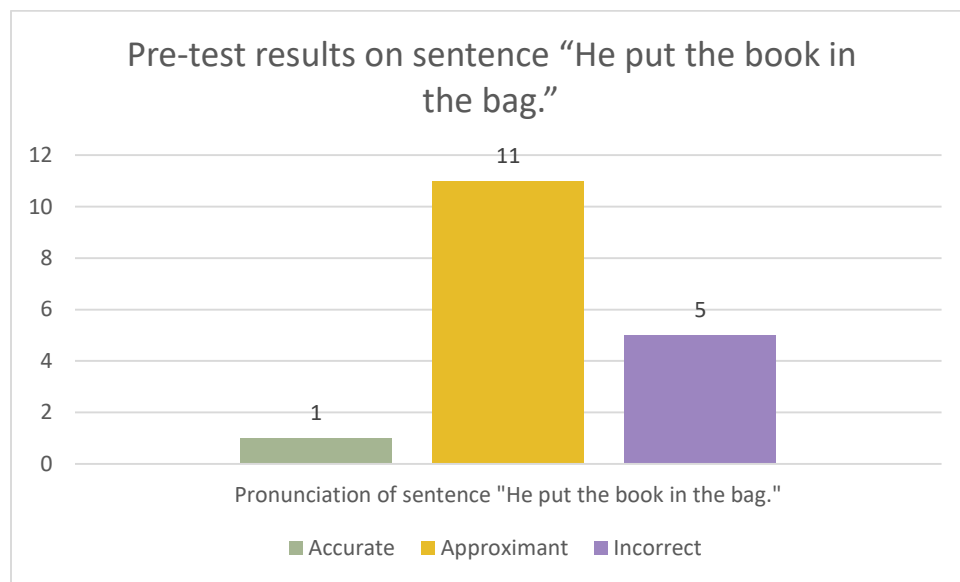


Figure 15. This figure illustrates how many students pronounced the phonemes /ʊ/, /ʊ/, and /æ/ in the words “put,” “book,” and “bag” as accurate, approximate, or incorrect while reading the sentence “He put a book in the bag.” Researcher’s creation

4.1.1.2.6 Pre-test results on sentence “Sam could see the moon.”

During the pre-test, students were also evaluated on the pronunciation of the monophthong vowels /æ/, /i/, and /u/ as they read the sentence “Sam could see the moon.” The assessment focused on the words “Sam,” “see,” and “moon,” which include the target vowel sounds /æ/, /i/, and /u/, respectively. Five students demonstrated accurate pronunciation of three sounds, reflecting strong articulation skills. Nine students delivered approximate pronunciations, suggesting they were close to the correct sounds but not entirely precise. Two students mispronounced the vowels, indicating difficulty in producing one or more of the target phonemes. Overall, the results highlight a range of performance levels, as most students display a partial grasp of these vowel sounds in context.

Figure 16. Pre-test results on sentence “Sam could see the moon.”

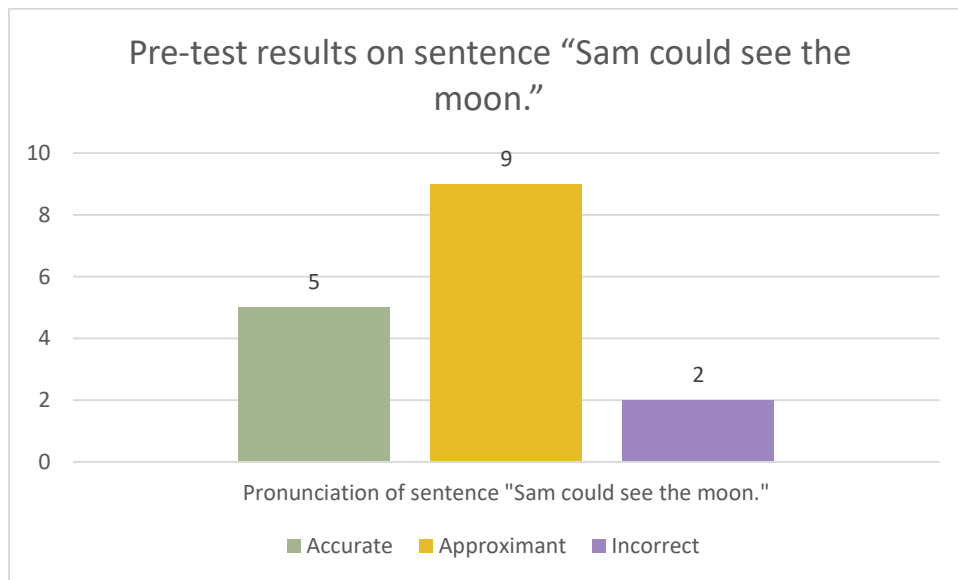


Figure 16. The figure shows how students pronounced the phonemes /æ/, /i/, and /u/ in the words “Sam,” “see,” and “moon” as accurate, approximate, or incorrect while reading the sentence “Sam could see the moon.” Researcher’s creation

4.1.2 Post-test

The post-test was conducted after the implementation of three active reading activities: Listen and Repeat, Reading Aloud, and Imitation and Echo Reading. The test followed the same format as the pre-test, assessing the pronunciation of monophthong phonetic vowels in both isolated words and complete sentences. As with the initial evaluation, students' pronunciations were categorized as accurate, approximate, or incorrect according to the rubric described in Chapter III. The results are presented as follows, allowing for a direct comparison of pronunciation performance before and after the intervention.

4.1.2.1 Pronunciation Analysis of Monophthong Phonetic Vowels in Isolated Words

This section presents the results of students' pronunciation of monophthong phonetic vowels in isolated words, as assessed in the post-test. The same set of ten words used in the pre-test was applied, targeting nine distinct vowel sounds: cat (/æ/), bed (/ɛ/), sit (/i/), sun (/ʌ/), book (/ʊ/), hat (/æ/), car (/ɑ/), tree (/i/), food (/u/), and horse (/ɔ/). Students' responses were evaluated using the established rubric, categorizing each attempt as accurate, approximate, or incorrect. Bar charts are included to visually display the number of students in each category based on each word, facilitating a straightforward comparison with the results obtained in the pre-test.

4.1.2.1.1 Post-test results on isolated word “cat”

As part of the post-test, the students’ pronunciation of the monophthong vowel /æ/ in the isolated word “cat.” was assessed. All sixteen students produced the vowel sound accurately. This means that approximate or incorrect pronunciations were not recorded. This result reflects full mastery of the target sound among the participants for this specific word.

Figure 17. Post-test results on isolated word “cat”

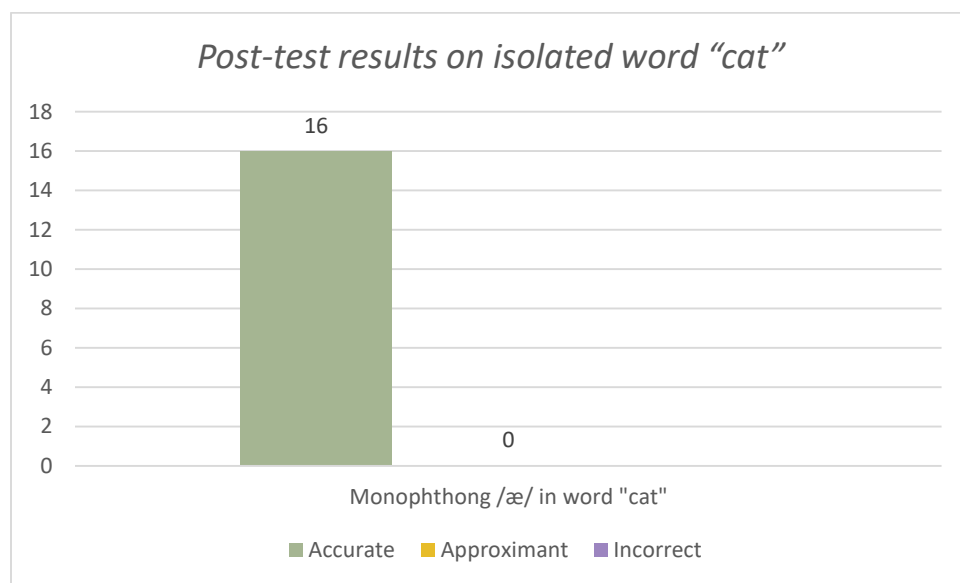


Figure 17. The figure displays the number of students who pronounced the monophthong vowel /æ/ in the isolated word “cat” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.2 Post-test results on isolated word “bed”

During the post-test phase, students were evaluated on the articulation of the monophthong vowel /ε/ in the isolated word “bed.” Fifteen students accurately produced the vowel sound, while one student mispronounced it. No approximate pronunciations were noted, indicating a high level of improvement and precision among most participants.

Figure 18. Post-test results on isolated word “bed”

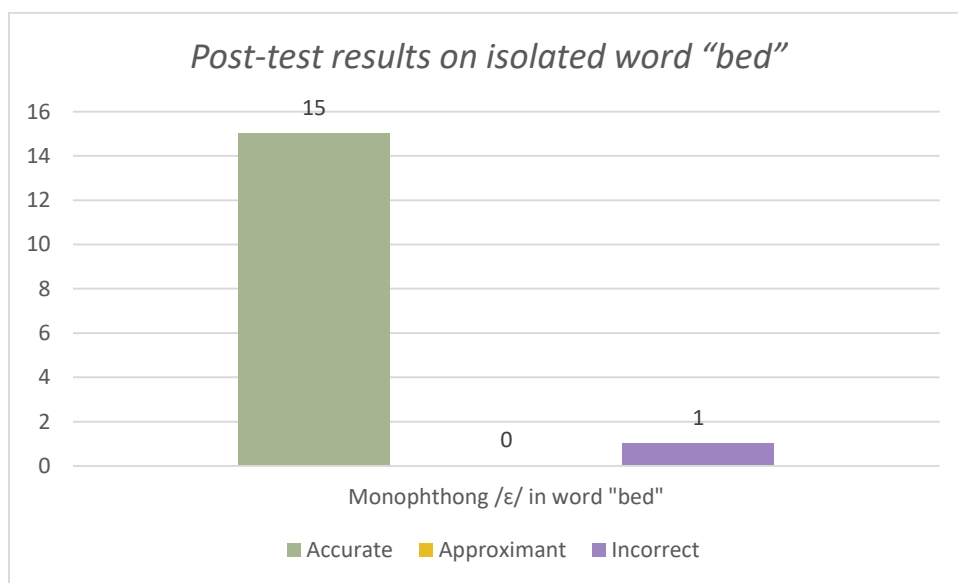


Figure 18. The figure presents the number of students who pronounced the monophthong vowel /ε/ in the isolated word “bed” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.3 Post-test results on isolated word “sit”

Following the intervention, students' pronunciation of the monophthong vowel /ɪ/ in the isolated word “sit” was assessed. Out of sixteen students, eleven articulated the vowel accurately, four produced an approximate version, and one student pronounced it incorrectly. These results suggest a generally strong improvement with minimal errors.

Figure 19. Post-test results on isolated word “sit”

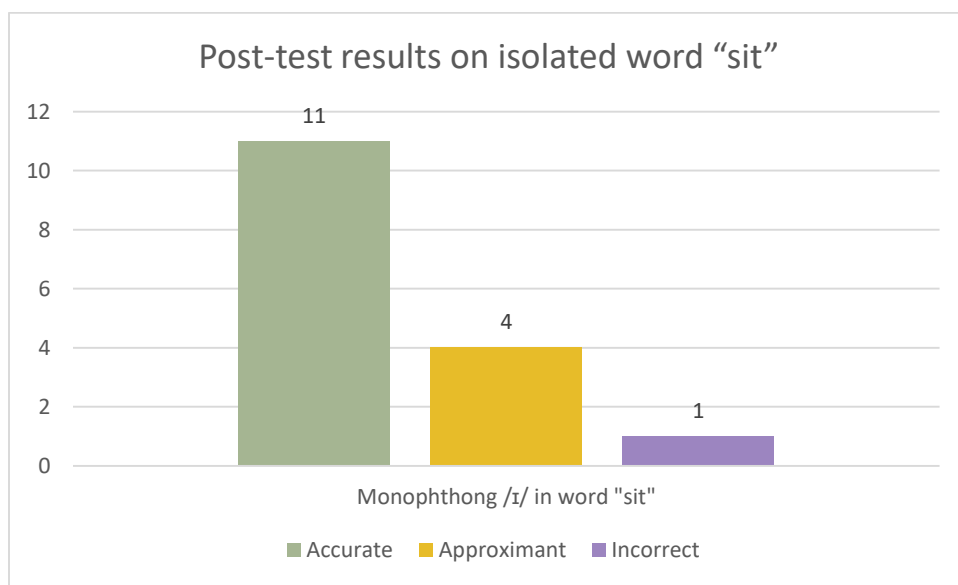


Figure 19. The figure illustrates how students pronounced the monophthong vowel /ɪ/ in the isolated word “sit” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.4 Post-test results on isolated word “sun”

During the post-test evaluation, students were tested on the pronunciation of the monophthong vowel /ʌ/ in the isolated word “sun.” Ten students pronounced the vowel correctly, three provided an approximate pronunciation, and three mispronounced the sound. The results reflect overall improvement with some remaining difficulties-

Figure 20. Post-test results on isolated word “sun”

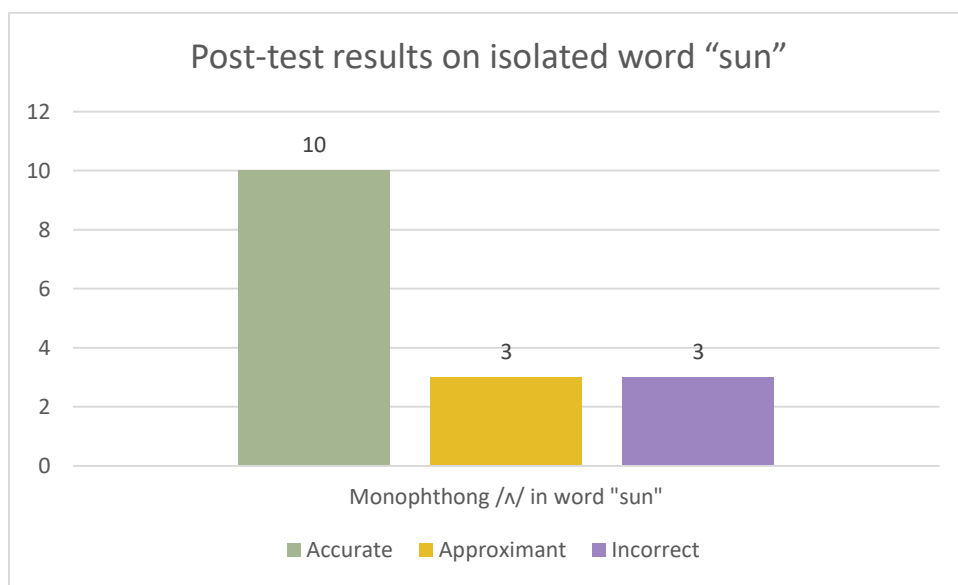


Figure 20. The figure shows the distribution of students who pronounced the monophthong vowel /ʌ/ in the isolated word “sun” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.5 Post-test results on isolated word “book”

For the post-test, the students’ pronunciation of the monophthong vowel /ʊ/ in the isolated word “book” was assessed. Ten students were able to pronounce the target vowel accurately, while three students produced an approximate version, and three students mispronounced the sound. These findings show a clear improvement, although minor difficulties persisted for a few learners.

Figure 21. Post-test results on isolated word “book”

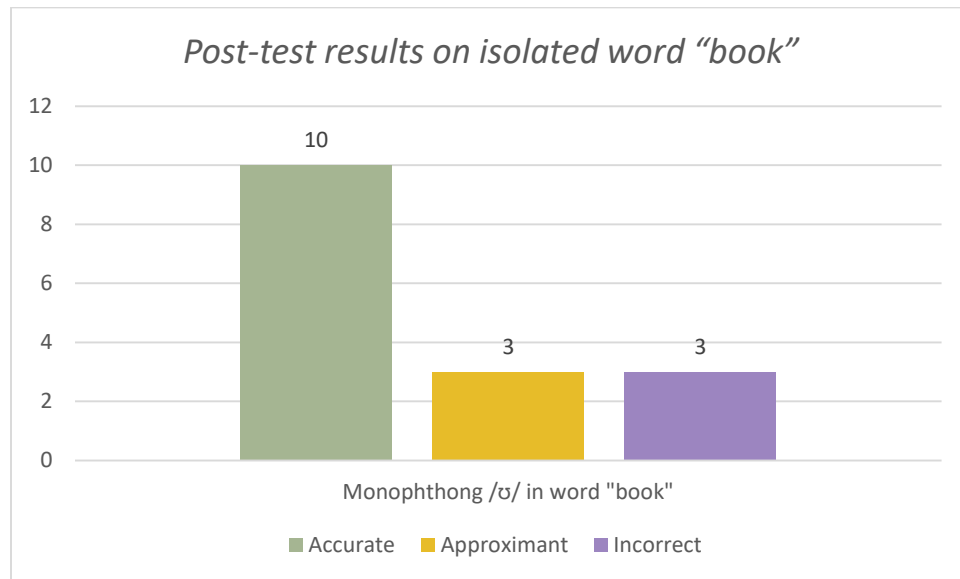


Figure 21. The figure reflects how many students pronounced the monophthong vowel /ʊ/ in the isolated word “book” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.6 Post-test results on isolated word “hat”

In the post-test analysis of the word “hat,” students were evaluated on the production of the monophthong vowel /æ/. Thirteen students achieved accurate pronunciation, two provided an approximate version, and only one student mispronounced the vowel. These results indicate a strong grasp of the target sound by the majority of the students in the group.

Figure 22. Post-test results on isolated word “hat”

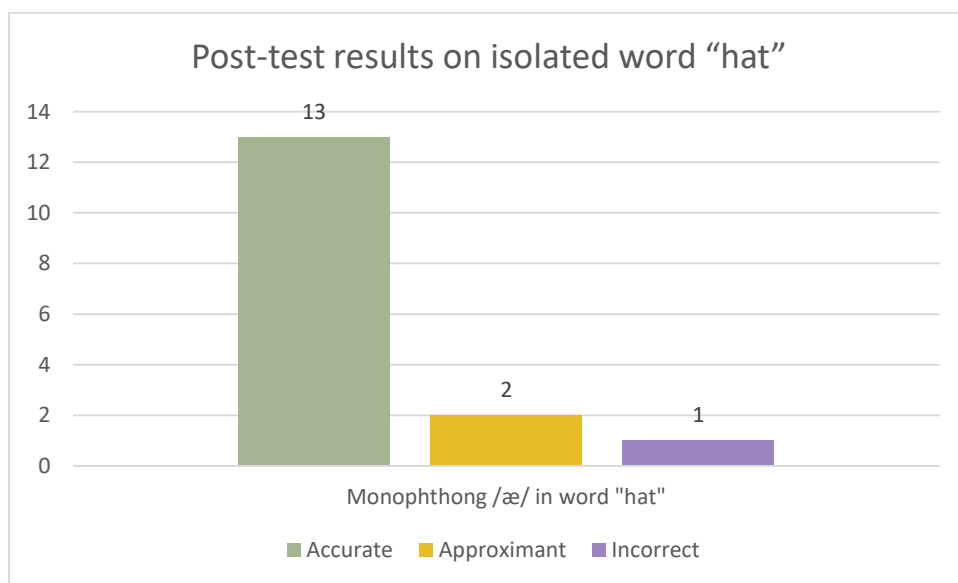


Figure 22. This figure shows the number of students who pronounced the monophthong vowel /æ/ in the isolated word “hat” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.7 Post-test results on isolated word “car”

During the post-test, students were asked to pronounce the monophthong vowel /ɑ/ in the isolated word “car.” Out of the sixteen participants, fifteen pronounced the sound accurately, while one student provided an approximate pronunciation. No incorrect responses were recorded, indicating a high level of mastery for this specific vowel.

Figure 23. Post-test results on isolated word “car”

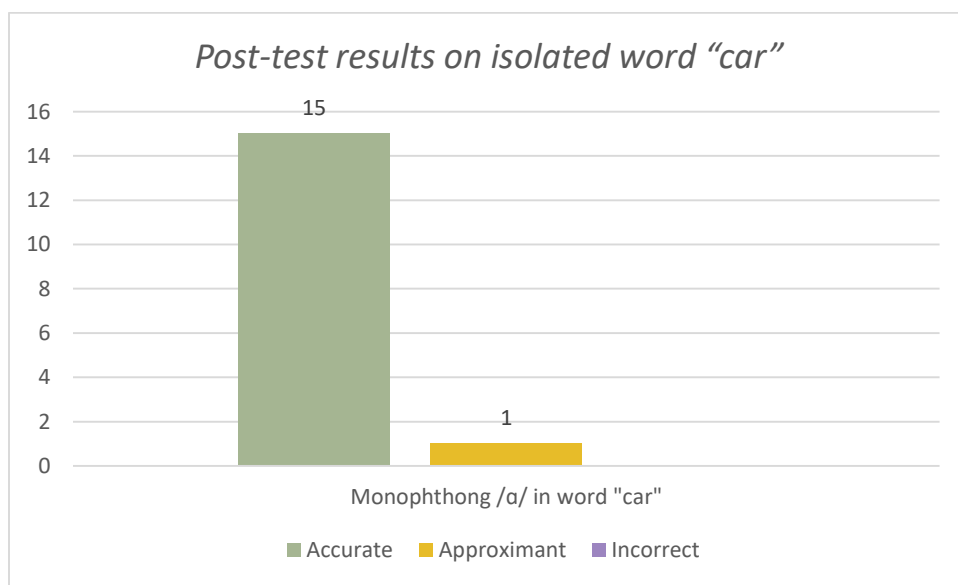


Figure 23. The figure illustrates the number of students who pronounced the monophthong vowel /ɑ/ in the isolated word “car” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.8 Post-test results on isolated word “tree”

As part of the post-test evaluation, students were assessed on the pronunciation of the monophthong vowel /i/ in the isolated word “tree.” All sixteen students produced the vowel sound correctly. Therefore, approximate or incorrect responses were not recorded. This indicates complete accuracy among participants for this specific phoneme.

Figure 24. Post-test results on isolated word “tree”

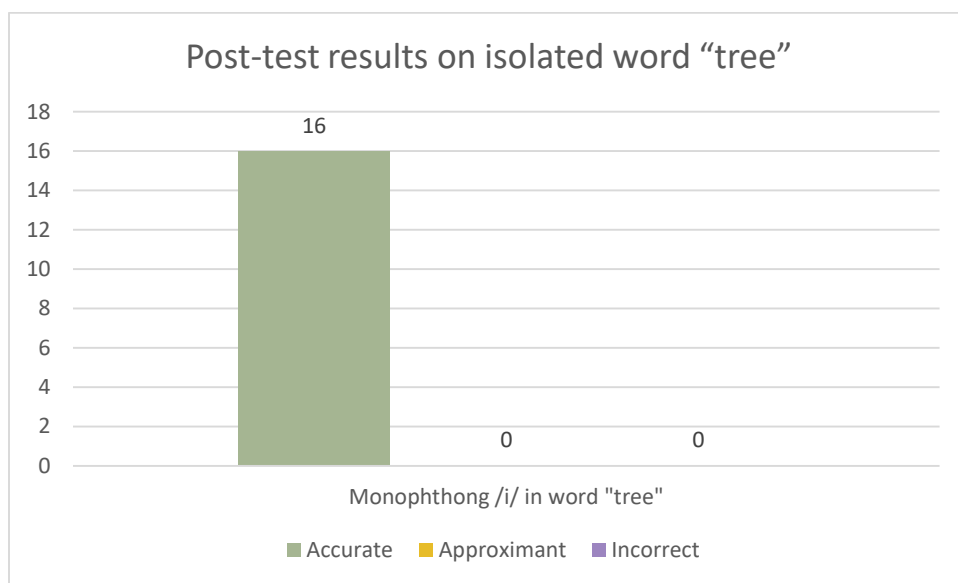


Figure 24. This figure presents the number of students who pronounced the monophthong vowel /i/ in the isolated word “tree” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.9 Post-test results on isolated word “food”

In the post-test stage, students' pronunciation of the monophthong vowel /u/ in the isolated word “food” was analyzed. Seven students pronounced the vowel accurately, three delivered an approximate version, and six mispronounced it. The distribution suggests a mixed outcome, with nearly half of the students still encountering difficulties with this sound.

Figure 25. Post-test results on isolated word “food”

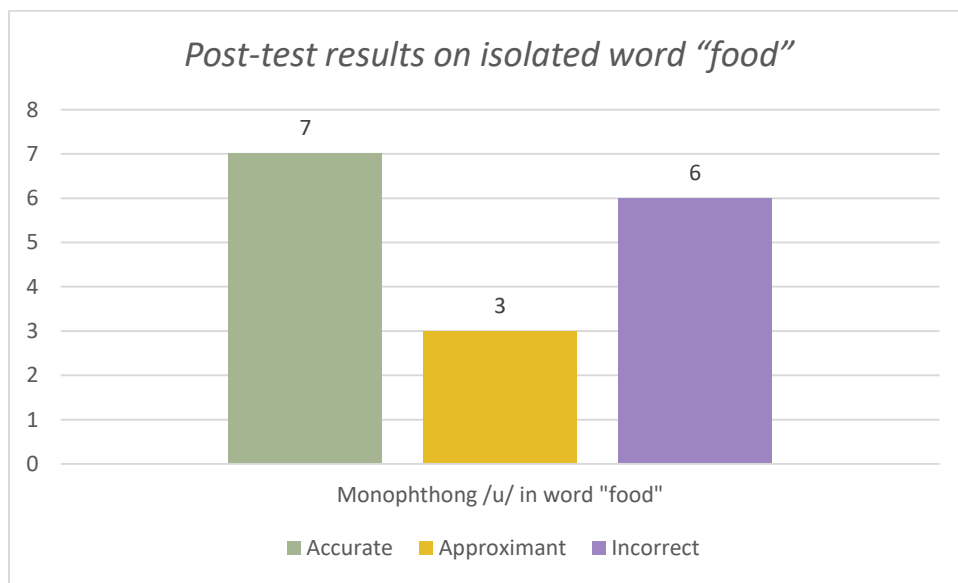


Figure 25. The figure displays how many students pronounced the monophthong vowel /u/ in the isolated word “food” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.1.10 Post-test results on isolated word “horse”

As part of the post-test analysis, students were evaluated on the pronunciation of the monophthong vowel /ɔ/ in the isolated word “horse.” Eleven students produced the sound correctly, one pronounced it in an approximate way, and four students mispronounced it. While most students demonstrated accuracy, a few still showed challenges regarding this vowel sound.

Figure 26. Post-test results on isolated word “horse”

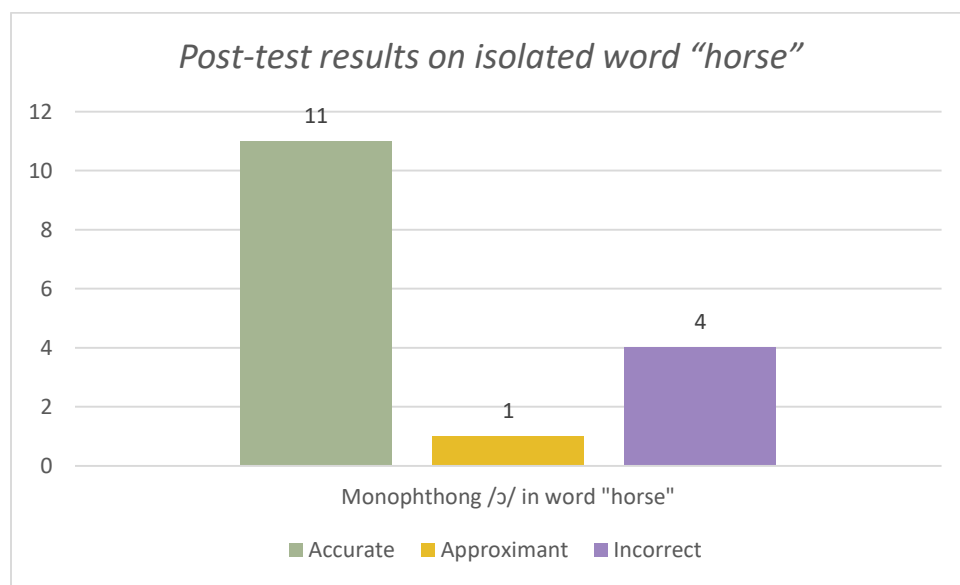


Figure 26. This figure presents the number of students who pronounced the monophthong vowel /ɔ/ in the isolated word “horse” as accurate, approximate, or incorrect. Researcher’s creation

4.1.2.2 Pronunciation Analysis of Monophthong Phonetic Vowels in Complete Sentences

This section presents the analysis of students’ pronunciation of monophthong phonetic vowels in complete sentences, as evaluated in the post-test. The same sentences used during the pre-test were applied to ensure consistency and allow direct comparison. Each sentence included two to three of the nine target vowel sounds: /æ/, /ɛ/, /ɪ/, /ʌ/, /ʊ/, /ɑ/, /i/, /u/, and /ɔ/. Students’ responses were assessed using the established rubric, with pronunciations classified as accurate,

approximate, or incorrect. Bar charts are included to visually represent the number of students in each category per sentence, providing a clear overview of pronunciation performance following the instructional activities.

4.1.2.2.1 Post-test results on sentence “The cat sat on the mat.”

During the post-test, students were assessed on the pronunciation of the monophthong vowel /æ/ within the sentence “The cat sat on the mat.” The evaluation specifically focused on the words “cat” and “mat,” which contain the target vowel sound. All sixteen students successfully articulated the /æ/ sound with accuracy, demonstrating clear and correct pronunciation. There were no instances of approximate or incorrect renditions, reflecting a significant improvement and complete mastery of this vowel sound in the entire group.

Figure 27. Post-test results on sentence “The cat sat on the mat.”

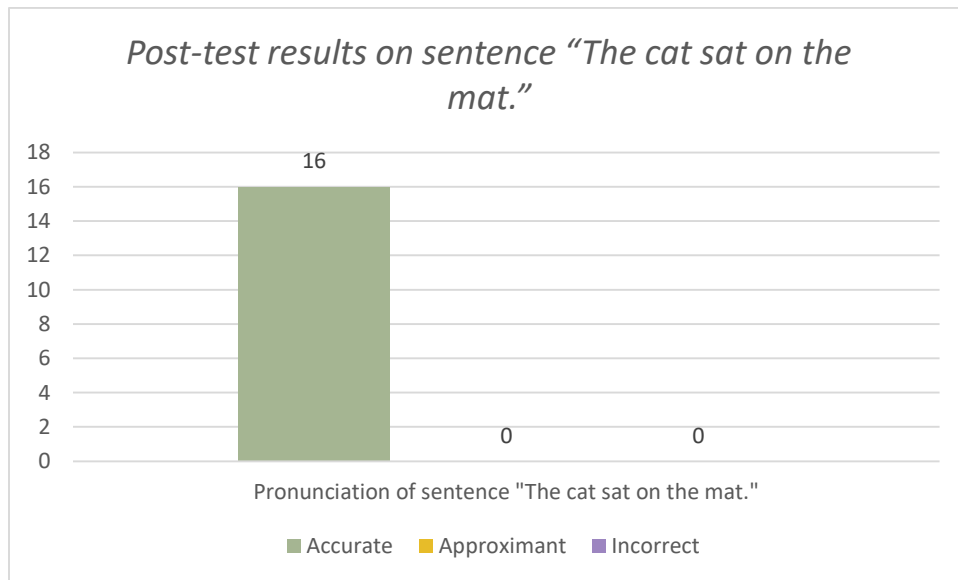


Figure 27. The figure shows how many students pronounced the phonemes /æ/ and /æ/ in the words “cat” and “mat” as accurate, approximate, or incorrect when reading the sentence “The cat sat on the mat.” Researcher’s creation

4.1.2.2.2 Post-test results on sentence “The sun is hot.”

During the post-test, students were evaluated on the-pronunciation of the monophthong vowels /ʌ/ and /ɑ/ using the sentence “The sun is hot.” The assessment focused on the accurate production of the-vowel sounds in the words “sun” and “hot.” Eleven students successfully articulated both vowels with precision, while five delivered an approximate pronunciation, showing minor deviations from the target sounds. Notably, any of the students produced incorrect pronunciations, indicating a marked improvement in accuracy compared to the pre-test results and thus, suggesting that the instructional intervention was effective in enhancing students’ awareness and production of these phonemes.

Figure 28. Post-test results on sentence “The sun is hot.”

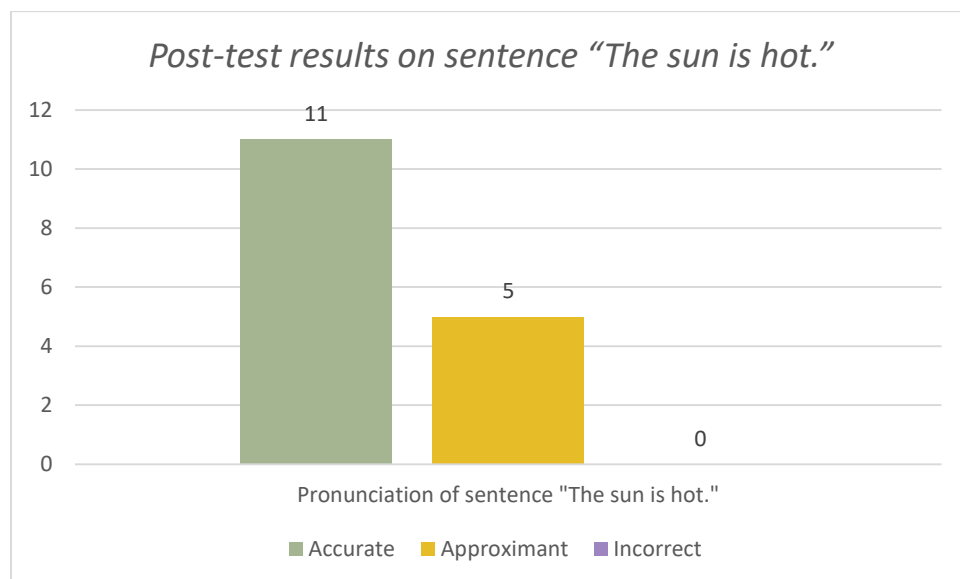


Figure 28. The figure illustrates the number of students who pronounced the phonemes /ʌ/ and /ɑ/ in the words “sun” and “hot” as accurate, approximate, or incorrect while reading the sentence “The sun is hot.” Researcher’s creation

4.1.2.2.3 Post-test results on sentence “I do not like green eggs and ham.”

In this segment of the post-test, students were evaluated on the pronunciation of the monophthong vowels /i/, /ɛ/, and /æ/ within the sentence “I do not like green eggs and ham.” The assessment targeted the words “green,” “eggs,” and “ham,” each representing one of the vowel sounds under study. Seven students demonstrated accurate pronunciation of all three sounds, while eight delivered approximate renditions, indicating near-correct articulation with minor inconsistencies. Only one student mispronounced the vowel sounds. These results reflect a general improvement compared to the pre-test, though the frequency of approximate pronunciations suggests that some students continued to face slight challenges in mastering the target vowels.

Figure 29. Post-test results on sentence “I do not like green eggs and ham.”

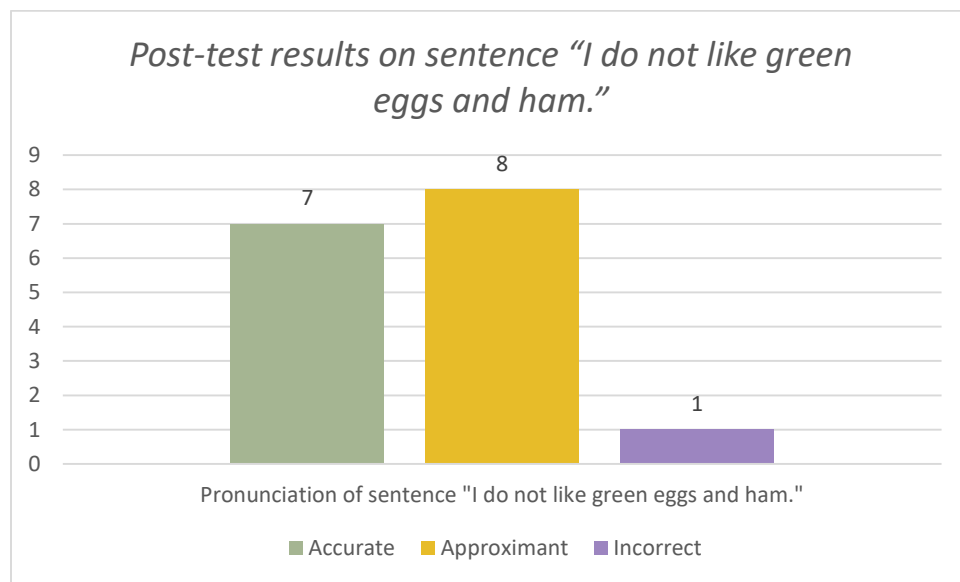


Figure 29. The figure displays how many students pronounced the phonemes /i/, /ɛ/, and /æ/ in the words “green,” “eggs,” and “ham” as accurate, approximate, or incorrect when reading the sentence “I do not like green eggs and ham.” Researcher’s creation

4.1.2.2.4 Post-test results on sentence “The bus is red and full.”

In this part of the post-test, students were assessed on the pronunciation of the monophthong vowels /ʌ/, /ɛ/, and /ʊ/ within the sentence “The bus is red and full.” The focus was on the correct articulation of the vowel sounds in the words “bus,” “red,” and “full.” Eleven students successfully pronounced all target sounds with accuracy, reflecting strong phonetic improvement. The remaining five students produced approximate pronunciations, which, although not entirely precise, were close to the expected sounds. Notably, there were no instances of incorrect pronunciation, indicating a significant improvement compared to the pre-test results and suggesting the effectiveness of the instructional activities.

Figure 30. Post-test results on sentence “The bus is red and full.”

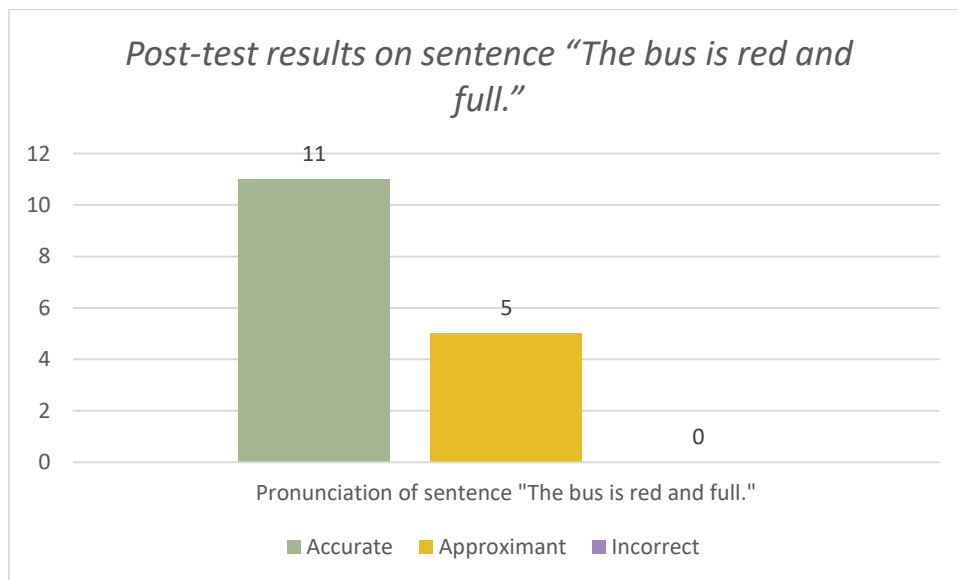


Figure 30. The figure indicates how students pronounced the phonemes /ʌ/, /ɛ/, and /ʊ/ in the words “bus,” “red,” and “full” as accurate, approximate, or incorrect when reading the sentence “The bus is red and full.” Researcher’s creation

4.1.2.2.5 Post-test results on sentence “He put the book in the bag.”

During the this post-test, students also were assessed on the pronunciation of the monophthong vowels /ʊ/, /ʊ/, and /æ/ as found in the sentence “He put the book in the bag.” The evaluation focused specifically on the words “put,” “book,” and “bag,” each containing one of the target vowel sounds. Seven students accurately articulated all three vowel sounds, demonstrating clear improvement and correct pronunciation. The remaining nine students provided approximate pronunciations, indicating minor deviations but still showing a good level of understanding. No mispronunciations were recorded, suggesting consistent progress and increased familiarity with these phonemes in the entire group.

Figure 31. Post-test results on sentence “He put the book in the bag.”

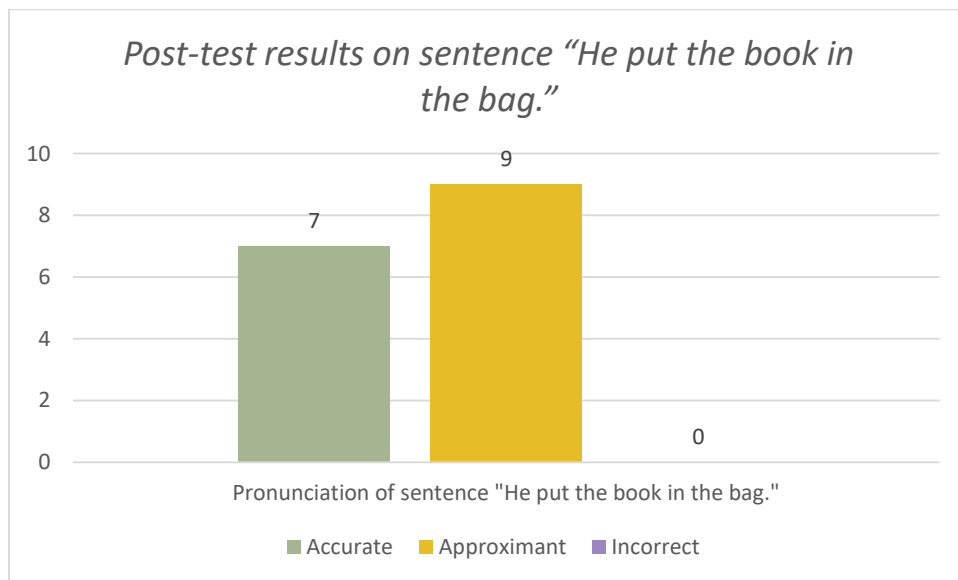


Figure 31. The figure displays the number of students who pronounced the phonemes /ʊ/, /ʊ/, and /æ/ in the words “put,” “book,” and “bag” as accurate, approximate, or incorrect when reading the sentence “He put the book in the bag.” Researcher’s creation

4.1.2.2.6 Post-test results on sentence “Sam could see the moon.”

In the final sentence of the post-test, students were assessed on the pronunciation of the monophthong vowels /æ/, /i/, and /u/ within the sentence “Sam could see the moon.” The evaluation focused on the articulation of the vowel sounds in the words “Sam,” “see,” and “moon.” Ten students accurately pronounced all three target sounds, demonstrating a strong grasp of the phonemes. The remaining six students produced approximate pronunciations, suggesting that while their efforts were close to accurate, slight variations remained. No incorrect pronunciations were noted, indicating steady improvement and overall success in helping students internalize and produce these vowel sounds more effectively.

Figure 32. Post-test results on sentence “Sam could see the moon.”

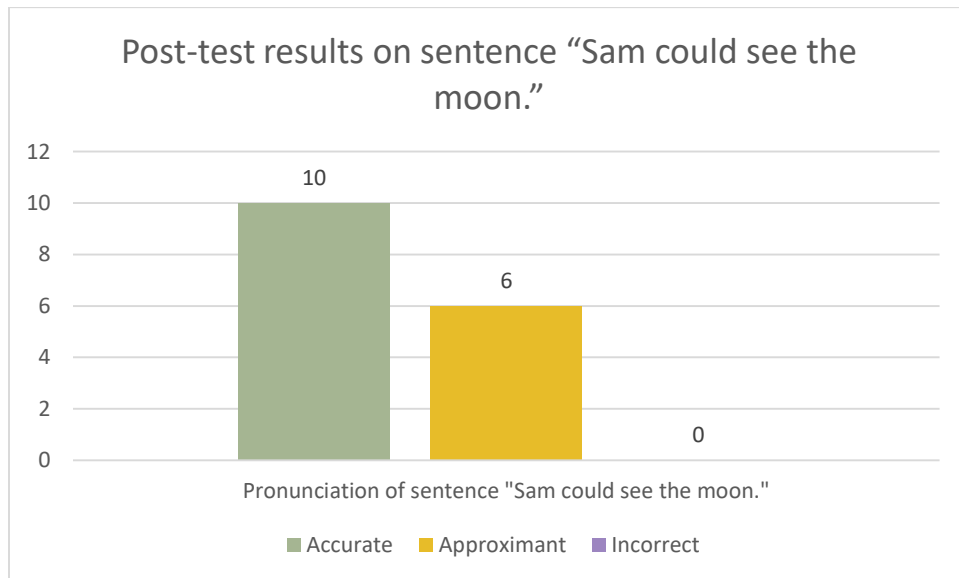


Figure 32. This figure shows how many students pronounced the phonemes /æ/, /i/, and /u/ in the words “Sam,” “see,” and “moon” as accurate, approximate, or incorrect when reading the sentence “Sam could see the moon.” Researcher’s creation

4.1.3 Student Self-Assessment Checklist

This section presents the results of the Student Self-Assessment Checklist, which was designed to gather the students' perceptions of their pronunciation abilities before and after the instructional activities. Students indicated their level of confidence by selecting one of three emojis provided by the instructor: (Happy), (Neutral), or (Confused). The following part describes the responses collected after the pre-test and post-test, highlighting any changes in students' self-perception throughout the study.

4.1.3.1 After Pre-Test

Following the pre-test, students completed the self-assessment checklist to indicate their confidence when pronouncing monophthong phonetic vowels. Out of the total participants, nine students selected the (Happy) emoji, four chose the (Neutral) emoji, and three selected the (Confused) emoji.

Figure 33. After pre-test self-assessment

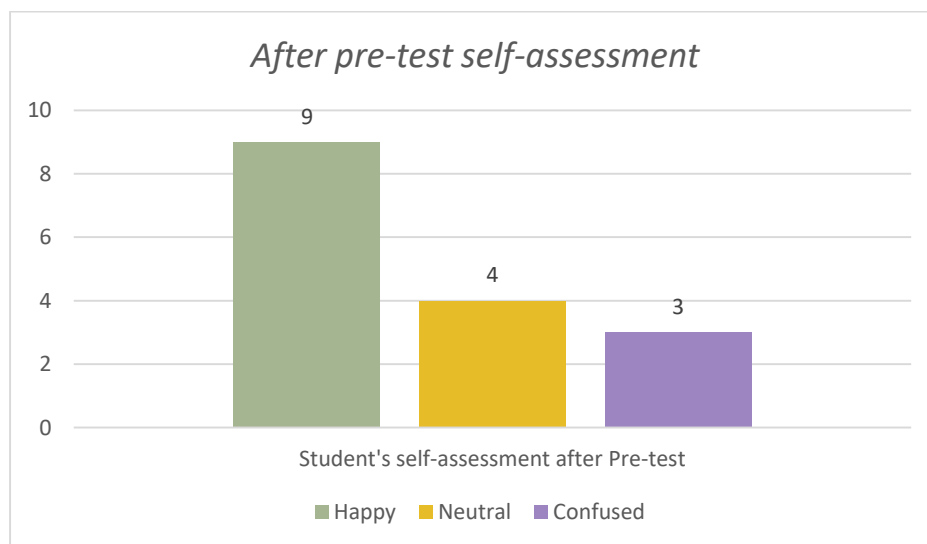


Figure 33. This figure represents the count of students' self-assessment based on how they felt after the Pre-test and before the active reading activities. Researcher's creation

4.1.3.2 After Post-Test

Upon completion of the post-test, students again rated their confidence using the same self-assessment checklist. This time, thirteen students chose the (Happy) emoji, none selected the (Neutral) emoji, and three students selected the (Confused) emoji.

Figure 34. After post-test self-assessment

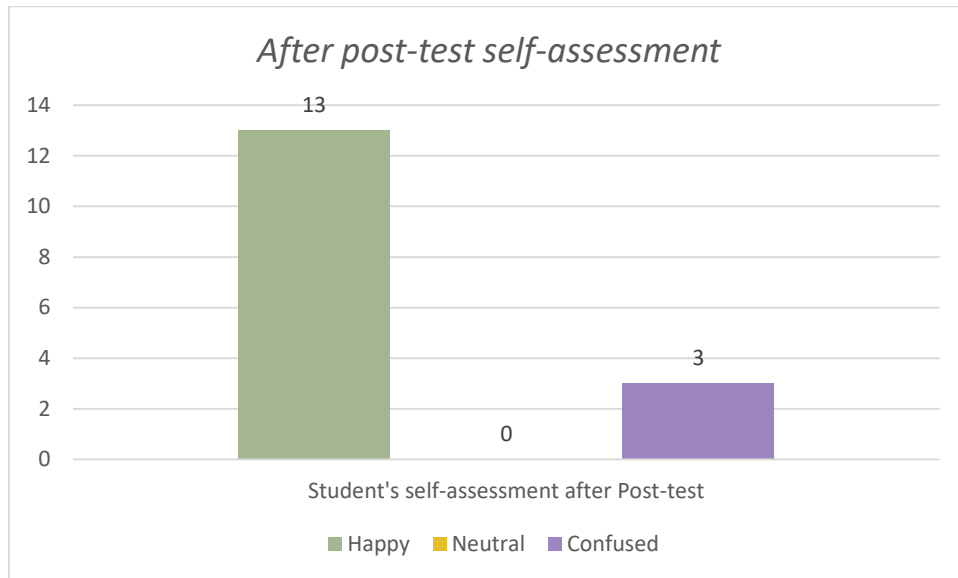


Figure 34. The count of students' self-assessment based on how they felt after the Post-test and after the active reading activities. Researcher's creation

Chapter V

Conclusions and Recommendations

This chapter presents the final reflections of the study, addressing the conclusions drawn from the analysis of the data and how they relate to the specific objectives and central research question. It begins by explaining the purpose of the conclusions in academic research, followed by a section that outlines the main findings corresponding to each specific objective. The chapter also includes the restatement of the research question and offers a general conclusion based on whether the research objective was achieved. In addition, any unexpected results that emerged during the study are discussed, and practical recommendations are provided for future researchers interested in exploring pronunciation development through similar strategies.

5.1 Purpose of the Conclusion

The purpose of a conclusion in research is to synthesize key findings, reflect on the significance of the study, and connect the results to the research objectives and question. It allows the researcher to present the implications of the investigation, highlight what was discovered, and suggest areas for future exploration. In this chapter, conclusions are drawn based on the data collected and analyzed in the previous chapter, emphasizing the impact of active reading strategies on students' pronunciation of monophthong phonetic vowels.

5.2 Conclusions

The following conclusions are presented in alignment with the specific objectives stated in Chapter I. The analysis of the pre-test and post-test results, as well as the students' self-assessments, served as the foundation for reaching these conclusions.

5.2.1 To identify different problems students face throughout the pronunciation learning path

The findings revealed several difficulties that fifth-grade students encountered when learning to pronounce monophthong phonetic vowels. Prior to the intervention, the pre-test results demonstrated a high number of approximate and incorrect pronunciations, particularly with sounds such as /u/, /o/, and /ɔ/. These results indicate that students were unfamiliar with specific vowel sounds, possibly due to lack of exposure, confusion with Spanish phonetic equivalents, or insufficient listening and pronunciation practice. Moreover, the students' self-assessment responses after the pre-test showed that many of them felt unsure about their pronunciation skills, so some even selected the confused emoji to express their lack of confidence. These outcomes suggest that, before applying any instructional strategy, students struggled both cognitively and emotionally with their pronunciation. The difficulties were especially evident when pronouncing vowel sounds within connected speech. Therefore, this objective allowed the identification of specific pronunciation challenges and highlighted the need for targeted interventions to improve phonetic accuracy and student confidence.

5.2.2 To create assessment tools for pronunciation based on active reading

As part of the research process, a series of formative and summative tools were designed to evaluate the pronunciation of monophthong phonetic vowels before and after the implementation of active reading strategies. These tools included the pre-test and post-test (each divided into isolated words and complete sentences), a pronunciation rubric with three consistent levels (accurate, approximate, and incorrect), and a visual self-assessment checklist for students to reflect on their confidence.

The conclusion drawn from this objective is that the selected tools effectively measured both the progression and challenges in students' pronunciation. The rubric offered a simple yet clear framework for categorizing pronunciation attempts, while the use of bar charts enhanced the data's visual comprehension. Additionally, the self-assessment checklist added a valuable qualitative layer by capturing students' perceptions of their learning process. The tools were adaptable, easy to implement, and provided meaningful insights for both the researcher and future educators interested in assessing pronunciation development in a structured and student-centered way.

5.2.3 To analyze the assessment results based on students' pronunciation skills

The analysis of the assessment results confirmed that active reading strategies had a positive effect on students' pronunciation skills. In the post-test, there was a significant increase in accurate pronunciations across almost all the monophthong vowel sounds evaluated, particularly in isolated words like "cat," "bed," and "tree," where some sounds reached full accuracy. Sentences containing these same monophthong phonetic vowels also showed improved performance, and importantly, no incorrect pronunciations were recorded in many of the post-test items.

The comparison of pre-test and post-test data demonstrates that active reading strategies such as Listen and Repeat, Reading Aloud, and Imitation and Echo Reading contributed to a noticeable improvement in phonetic accuracy. Students became more confident, as seen in the increased number of "happy" self-assessment responses. Thus, this objective confirms that the assessment results reflected the effectiveness of active reading approach on pronunciation improvement.

5.3 Restatement of the Research Question

The central research question of this investigation was: “What is the effect of improving pronunciation by focusing on monophthongs phonetic vowels through active reading in students of fifth grade at Escuela Líder La Aurora during the second quarter of 2025?” This study originated from a recognized need to support pronunciation instruction in early language learning, especially when students struggle with phonetic accuracy due to a lack of meaningful and engaging practice. Throughout the course of the project, active reading strategies were implemented as the primary instructional method to support the development of monophthong vowel pronunciation. These strategies not only provided a structured learning approach, but they also allowed students to interact with the language in a repetitive, guided, and enjoyable way. The assessment tools and self-evaluation methods gave insight into both the objective progress and the subjective experience of the learners.

The data collected showed clear evidence of improvement: the number of accurate pronunciations increased in both isolated word and sentence contexts, and student confidence improved as reflected in the self-assessment checklists. Based on the findings, the general objective “To evaluate the effect of active reading strategies on the development of students’ pronunciation skills in monophthong phonetic vowels, through the application of both formative and summative assessment tools in fifth graders of Escuela Líder La Aurora” was successfully achieved. In conclusion, active reading strategies had a positive and measurable impact on the students’ pronunciation of monophthong vowel sounds. The structured assessments, coupled with student feedback, validated the effectiveness of this approach. It is therefore reasonable to affirm that the research question was answered positively: active reading strategies do improve the pronunciation of monophthong phonetic vowels in young EFL learners.

5.4 Unexpected Results

The research was conducted as planned and all steps of the intervention and assessment were implemented without significant deviations. There were no external factors that negatively affected the development of the study. However, one unexpected and particularly interesting observation emerged during the post-test: several students took noticeable time to consciously think about the correct pronunciation of certain vowel sounds before speaking, especially the monophthong phonetic vowel /ʌ/ in words like *sun* and *bus*.

This reflective behavior appeared to be a direct result of the second activity, Reading Aloud, and the carefully selected texts used during the intervention. It was remarkable to observe how some students initially mispronounced the vowel, but then immediately self-corrected after a brief pause. This moment of conscious awareness of the internal process of recalling and applying the correct sound was not an anticipated outcome. It highlighted a deeper level of metacognitive engagement, indicating that students were not merely repeating sounds but actively thinking about what they had learned and how to apply it. This level of self-monitoring is a valuable indicator of developing phonological awareness and autonomy in language learning.

5.5 Recommendations

For future researchers interested in exploring pronunciation development through active reading or similar strategies, it is recommended to consider extending the intervention over a longer period to reinforce learning further. Including audio recordings for before-and-after comparisons might also enrich the analysis, especially to capture instances of self-correction and reflection.

In addition, the study revealed that students demonstrated moments of conscious awareness when recalling the correct pronunciation of certain vowel sounds. Therefore, it is suggested that future research or classroom practice explicitly promotes metacognitive strategies, such as self-monitoring and guided reflection. Activities that encourage students to pause, think about the sound, and self-correct can enhance both their understanding and retention of pronunciation features. Finally, this study may serve as a foundation for adapting the same methodology to address other challenging phonetic elements, such as diphthongs or consonant clusters, within primary education settings.

References

- Acuña, E., & Quirós, J. (2017). IMPLEMENTATION OF THE MULTISTAGE FRAME TECHNIQUE TO ENHANCE STUDENTS' PRONUNCIATION OF STANDARD AMERICAN ENGLISH VOWEL SOUNDS IN GROUP 10-1A AT CANAÁN HIGH SCHOOL, 58–88. Retrieved January 25, 2023, from <https://repositorio.una.ac.cr/handle/11056/18097>.
- Alcaldía de Medellín. (2018). Bilingüismo para la paz. <https://www.medellin.gov.co/irj/portal/medellin?NavigationTarget=navurl://0daba977d1a833a77af25e77d59a33dd>
- Bae, J., & Kim, Y. (2017). Effectiveness of a speech recognition-based pronunciation training program for EFL learners. *Language Learning & Technology*, 21(2), 150-168.
- Bae, J., & Kim, Y. (2017). Effectiveness of a speech recognition-based pronunciation training program for EFL learners. *Language Learning & Technology*, 21(2), 150-168. Retrieve from (<https://www.lltjournal.org/item/3019>)
- Bernstein Ratner, N., & Bernstein Ratner, J. (2017). Speech sound disorders. In R. G. Schwartz & R. B. Kluender (Eds.), *The Handbook of Speech Perception* (pp. 369-390). John Wiley & Sons.
- Bernstein Ratner, N., & Bernstein Ratner, J. (2017). Speech sound disorders. In R. G. Schwartz & R. B. Kluender (Eds.), *The Handbook of Speech Perception* (pp. 369-390). John Wiley & Sons.

British Council. (2018). The Americas: English language learning and teaching market report.

Retrieve from <https://www.britishcouncil.org/research-policy-insight/research-reports/americas-english-language-learning-teaching-market-report-2018>

British Council. (2018). The state of English in Latin America.

<https://www.britishcouncil.org/sites/default/files/english-effect-latam-report-v2.pdf>

Burns, A. (2010). *Doing action research in English language teaching: A guide for practitioners*. Routledge.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation: A course book and reference guide* (2nd ed.). Cambridge University Press.

Cerda, R. F. (2019). Teaching science in English: Effects on English proficiency and science achievement. *Profile: Issues in Teachers' Professional Development*, 21(2), 57-74.
<https://revistas.unal.edu.co/index.php/profile/article/view/75668/68197>

Chen, S. C., & Wang, Y. F. (2018). Mobile-assisted pronunciation teaching: An investigation of the effectiveness of personalized feedback. *Journal of Educational Computing Research*, 56(1), 66-85.

Chomsky, N. (2018). *Language and mind*. Cambridge University Press.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Crystal, D. (2011). *A dictionary of linguistics and phonetics* (6th ed.). Wiley-Blackwell.

Crystal, D. (2018). *The Cambridge encyclopedia of the English language* (3rd ed.). Cambridge University Press.

Dauer, R. M. (2019). *The sounds of speech: An introduction to phonetics*. Cengage Learning.

Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. Amsterdam: John Benjamins.

Derwing, T. M., & Munro, M. J. (2017). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing Company.

Derwing, T. M., & Munro, M. J. (2018). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing Company.

Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing Company.

Diaz, K. (2020). MEP Presenta Ruta "hacia la Costa Rica bilingüe": Ministerio de Educación Pública. MEP presenta ruta "Hacia la Costa Rica bilingüe" | Ministerio de Educación Pública. Retrieved from <https://www.mep.go.cr/noticias/mep-presenta-ruta-%E2%80%9Chacia-costa-rica-bilinguee%E2%80%9D>

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford University Press.

Dörnyei, Z., & Ryan, S. (2018). *The psychology of the language learner revisited*. Routledge.

Dr. Seuss. (2019, June 24). *Green eggs and ham / Read aloud story for kids* [Video]. YouTube.

<https://youtu.be/ldCum4kv3AQ?si=78hcZkLjNm49EhOm>

Ellis, R. (2018). *The study of second language acquisition*. Oxford University Press.

Flege, J. E., & Liu, S. (2017). Age constraints on second-language acquisition. In *The Routledge Handbook of Second Language Acquisition* (pp. 149-166). Routledge.

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

Ghounane, N. (2019). THE STUDY CORRELATION BETWEEN READING HABIT AND PRONUNCIATION ABILITY AT THE SECOND GRADE STUDENTS OF IKIP SILIWANGI. *Arab World English Journal*. Retrieved January 2023, from shorturl.at/bpV26.

Giegerich, H. J. (2011). *English phonology: An introduction*. Cambridge University Press.

Gierut, J. A., Morrisette, M. L., & Hughes, M. T. (2018). Phonological treatment efficacy and developmental norms for speech error patterns in young children. *Journal of Speech, Language, and Hearing Research*, 61(10), 2508-2526.

Gildersleeve-Neumann, C. E., Goldstein, B. A., & Powell, T. W. (2018). *Speech sound disorders in children: An articulation perspective*. Jones & Bartlett Learning.

Golestani, N., & Zatorre, R. J. (2017). Learning new sounds of speech: reallocation of neural substrates. *NeuroImage*, 150, 74-82.

- González-Lloret, M., & Ortega, L. (2014). Technology-mediated TBLT in Latin America: An overview. *Language Learning & Technology*, 18(3), 9-23.
- Grant, L. E., & Nesse, R. (2019). Pronunciation instruction for learners of English as a second language. Routledge.
- Grant, L. E., & Nesse, R. (2019). Pronunciation instruction for learners of English as a second language. Routledge. (<https://www.routledge.com/Pronunciation-Instruction-for-Learners-of-English-as-a-Second-Language/Grant-Nesse/p/book/9780367202274>)
- Guo, Y. (2016). Effects of mobile assisted pronunciation training (MAPT) on improving English pronunciation among Chinese EFL learners. *Computer Assisted Language Learning*, 29(5), 915-931.
- Hakimzadeh, R., & Haghghi, S. (2021). The relationship between speech motor skills and foreign language learning: A systematic review. *Frontiers in Psychology*, 12, 807.
- Hoff, E., & Naigles, L. (2018). How children use input to acquire a lexicon. *Child Development Perspectives*, 12(1), 11-16.
- Hualde, J. I. (2017). *The Sounds of Spanish: Analysis and Application*. Georgetown University Press.
- Krashen, S. D. (2017). *Principles and practice in second language acquisition*. Pergamon Press.
- Kubozono, H. (2017). The phonetics and phonology of Japanese vowel devoicing. *Language and Linguistics Compass*, 11(11), e12253.

Kuhl, P. K. (2018). Brain mechanisms in early language acquisition. *Neuron*, 100(2), 272-287.

Kuhl, P. K. (2018). Early language learning and the brain. In S. Roseberry, T. Warren, & L. M. Gentaz (Eds.), *Cognitive and linguistic foundations of early reading* (pp. 157-170).
Routledge.

Kukulska-Hulme, A. (2021). Mobile-assisted language learning [Chapter]. In S. Loewen & M. Sato (Eds.), *The Routledge Handbook of Instructed Second Language Acquisition* (pp. 348–362). Routledge.

Ladefoged, P., & Johnson, K. (2019). *A Course in Phonetics* (7th ed.). Cengage Learning.

Lee, J., & Kim, D. (2017). Effects of computer-assisted pronunciation training (CAPT) on ESL learners' pronunciation. *Language Learning & Technology*, 21(2), 123–138.

León, G. (2021). *The Role of Non-Native English Teachers (NNETs) Within the English Learning Process*. Universidad Nacional de Costa Rica.

Levis, J. M. (2018). *Teaching pronunciation as a communicative skill: Theory and practice*. John Wiley & Sons.

Levis, J. M. (2018). *Teaching pronunciation as a communicative skill: Theory and practice*. John Wiley & Sons. (<https://www.wiley.com/en-us/Teaching+Pronunciation+as+a+Communicative+Skill%3A+Theory+and+Practice-p-9781118783976>)

- Li, L. (2017). Effects of computer-assisted pronunciation training on EFL learners' pronunciation. *English Language Teaching*, 10(11), 127-137.
- Li, L., & Li, Y. (2017). The effects of mobile app use on vocabulary acquisition and retention: A meta-analysis. *Educational Technology & Society*, 20(2), 145-158.
<https://www.jstor.org/stable/pdf/26495132.pdf>
- Long, M. H., & Doughty, C. J. (Eds.). (2019). *The handbook of second language acquisition*. John Wiley & Sons.
- Mackey, A., & Gass, S. M. (2016). *Second language research: Methodology and design* (2nd ed.). Routledge.
- Manzo, J. C., & Buelvas, M. R. (2019). The effects of WhatsApp on speaking and listening skills in EFL contexts. *HOW Journal*, 26(2), 98-115.
<https://revistas.pedagogica.edu.co/index.php/how/article/view/10218/9236>
- Mertler, C. A. (2017). *Action research: Improving schools and empowering educators* (5th ed.). SAGE Publications.
- Ministerio de Educación del Perú. (2021). Programa de formación docente en inglés.
<https://www.gob.pe/institucion/minedu/noticias/217202-programa-de-formacion-docente-en-ingles-mejora-la-educacion-de-mas-de-450-mil-estudiantes>
- Ministerio de Educación Pública. (n.d.). Retrieved from <https://www.mep.go.cr/>
- Mohan, J. (2017). English without borders: Brazil's language programme. *The PIE News*.
<https://thepienews.com/news/english-without-borders-brazils-language-programme/>

Moon, C., Lagercrantz, H., & Kuhl, P. K. (2013). Language experienced in utero affects vowel perception after birth: A two-country study. *Acta Paediatrica*, 102(2), 156-160.

Nation, I. S. P., & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. Routledge.

National Autonomous University of Mexico. (2021). English courses.

<https://www.cepe.unam.mx/english-courses>

Novakid. (2021, October 29). What is the purpose of teaching children English pronunciation?:

Novakid. Novakid Blog. Retrieved January 28, 2023, from

<https://www.novakidschool.com/blog/what-is-the-purpose-of-teaching-children-english-pronunciation/>

Oller, D. K., & Griebel, U. (2018). Infant vocalizations and early speech: The role of phonetics.

In J. Goldstein, D. Naglieri, & R. Princiotta (Eds.), *Handbook of intelligence:*

Evolutionary theory, historical perspective, and current concepts (pp. 399-421). Springer.

Paige, D. (2020, July 30). Reading Fluency: A Brief History, the Importance of Supporting

Processes, and the Role of Assessment. Illinois; Northern Illinois University.

Parmawati, A. (2018). THE STUDY CORRELATION BETWEEN READING HABIT AND

PRONUNCIATION ABILITY AT THE SECOND GRADE STUDENTS OF IKIP

SILIWANGI. *Stkip Siliwangi Journal*.

Parmaxi, A., & Demetriou, A. (2020). Virtual reality in language learning: A systematic review

and implications for practice. *Computer Assisted Language Learning*, 33(3), 220–248.

Polka, L., & Bohn, O. S. (2019). Asymmetries in vowel perception. *Journal of Phonetics*, 77, 100918.

Pontifical Catholic University of Chile. (2021). English courses.

<https://www.uc.cl/en/programs/english-courses/>

Press, M. K. (2019, April 27). Why vowel versus consonant matters for reading success.

Medium. Retrieved January 28, 2023, from <https://medium.com/@maplekeypress/why-vowel-versus-consonant-matters-for-reading-success-199a9b4c043f>

Roach, P. (2018). *English phonetics and phonology: A practical course* (6th ed.). Cambridge University Press.

Roach, P. (2019). *English phonetics and phonology: A practical course* (6th ed.). Cambridge University Press.

Rhythm Syllables Clap Along For Kids [Video]. (2023, March 15). YouTube.

https://youtu.be/E4-HOZzhSIY?si=GRRpZycWp6TVet_8

Sameroff, A., McDonough, S. C., & Rosenblum, K. L. (2004). Treating development as the product of bidirectional relations among biology, culture, and context. *Research in Human Development*, 14(3), 212-227.

Sancier, M. L., & Fowler, C. A. (2019). Oral motor skills and speech intelligibility. *Perspectives of the ASHA Special Interest Groups*, 4(4), 873-882.

Seuss, Dr. (1957). *The cat in the hat*. Random House.

Seuss, Dr. (1960). *Green eggs and ham*. Random House.

Skeide, M. A., & Friederici, A. D. (2020). The ontogeny of the human language faculty—the roles of syntax, semantics, and pragmatics. *Language Learning*, 70(S1), 4-22.

Suggate, S. P., Stoeger, H., & Weiß, S. (2017). The relationship between motor skills, perceived social support, and internalizing problems in a community adolescent sample. *Journal of Child Psychology and Psychiatry*, 58(5), 556-567.

Swain, M. (2018). The output hypothesis 35 years later. *TESOL Quarterly*, 52(2), 243-259.

The Cat in the Hat Read Aloud [Video]. (2023, April 10). YouTube.

https://youtu.be/X5Irl_oWD6M?si=HHRlEm2iJHEmMQ3r

Tomasello, M. (2019). The usage-based theory of language acquisition. In A. S. Barajas & E. V. Clark (Eds.), *Handbook of child language acquisition* (pp. 16-36). John Benjamins Publishing.

Tomasello, M., & Gopnik, A. (2017). The unique role of joint attention in early word learning. *Trends in Cognitive Sciences*, 21(9), 655-669.

The Cat in the Hat Read Aloud [Video]. (2023, April 10). YouTube.

https://youtu.be/X5Irl_oWD6M?si=HHRlEm2iJHEmMQ3r

Underhill, A. (2015). *Sound foundations: Learning and teaching pronunciation* (2nd ed.).

Macmillan Education.

Valdivia, A. (2018). Content and language integrated learning (CLIL) in Latin American contexts: A critical review of the literature. *Profile: Issues in Teachers' Professional Development*, 20(2), 59-75.

<https://revistas.unal.edu.co/index.php/profile/article/view/72421/64769>

Wang, Y. (2018). Mobile apps for improving English pronunciation: A review of features and benefits. *International Journal of Computer-Assisted Language Learning and Teaching*, 8(4), 1–16.