

Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction

ANSHIYA A

24PED005

**A THESIS SUBMITTED TO
AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER
EDUCATION FOR WOMEN
COIMBATORE- 641043.**

**In Partial Fulfilment of the Requirements for the Degree of
MASTER OF EDUCATION
APRIL 2026**

Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction

ANSHIYA A

24PED005

UNDER THE GUIDANCE OF

DR.R. SOWBARANIGA

A THESIS SUBMITTED TO

AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER
EDUCATION FOR WOMEN

COIMBATORE- 641043.

In Partial Fulfilment of the Requirements for the Degree of

MASTER OF EDUCATION

APRIL 2026

CERTIFIED AS BONAFIDE RESEARCH WORK

Signature of Guide

Signature of the Head
of the Department

Signature of Dean

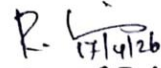
DECLARATION

DECLARATION

I, **Anshiya A**, hereby declare that the thesis entitled "**Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction**" submitted to Avinashilingam Institute for Home Science and a Higher Education for Women, Coimbatore, in partial fulfilment of the requirements for the award of the **Degree of Master of Education**, is a record of original and independent research work done by me during the period under the supervision and guidance of **Dr. R. Sowbaraniga, Assistant Professor, Department of Education**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, and it has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or other similar title to any candidate of this or any other University.



Signature of the Student



Signature of Guide

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

The investigator obliged to express the sense of gratitude to the **LORD ALMIGHTY**, who has been blessing her.

The investigator wants to place her reverential gratitude to **T.S. AVINASHILINGAM AYYA, the Founder and the First Chancellor** of this esteemed university and Hon. Colonel **RAJAMMAL.P. DEVADAS, Former Chancellor**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing the opportunity and exposure to the world of knowledge.

The investigator recorded her deep sense of gratitude and great appreciation to **Dr. T.S.K. Meenakshisundaram, Chancellor**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for all amenities provided for this investigation.

The investigator expresses her boundless gratitude to **Dr. V. BharathiHarishankar, Vice-Chancellor**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing all facilities necessary for the study.

The investigator is obligated to express her sincere thanks to **Dr. H. INDU, Registrar in-charge**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for the constant encouragement and the facilities provided to her by the institution.

The investigator owes her noble obligation to **Dr. H. INDU, Dean, School of Education**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her constructive criticism, and enlightened guidance, and support in organizing the study smoothly.

The investigator expresses her respectful gratitude and deep thanks to the **Head of the Department, Ms. S. Andal, Assistant Professor, Department of Education**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing necessary facilities during the conduct of the study.

The investigator feels privileged to express her sincere thanks and warm appreciation to her respected guide **Dr. R. Sowbaraniga, Assistant Professor, Department of Education**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her steadfast and dynamic guidance, heartfelt inspiration, motivation, untiring enthusiasm, courageous encouragement, meticulous corrections and comments, valuable suggestions and

timely help at each step throughout the process of research which were instrumental in the successful completion of the study.

The investigator expressed her gratitude to all **the staff members of the Department of Education and the Librarian**, who gave her all the support and courage to complete the study.

Words fail to express the investigator's deep indebtedness to her **family and friends** for their inspiration and affectionate encouragement during this investigation

TABLE OF CONTENT

CONTENT

CHAPTER NO.	TITLE	PAGE NO.
	LIST OF TABLES	
	LIST OF FIGURES	
	LIST OF APPENDICES	
	INTRODUCTION	
1	1.1 Phonics-based Instruction	
	1.2 Statement of the problem	
	1.3 Definition of the key terms	
	1.4 Need for the Study	
	1.5 Significance of the Study	
	1.6 Objectives of the Study	
	1.7 Hypotheses of the Study	
	1.8 Limitations of the Study	
	1.9 Organization of the Research Report	
	REVIEW OF LITERATURE	
2	2.1 Introduction	
	2.2 Purpose of Review of Literature	
	2.3 Conceptual framework and Teachers' Perception of Phonics-Based Instruction	
	2.4 Teacher's Knowledge, Understanding and Effectiveness towards Phonics Instruction	
	2.5 Classroom Readiness and Implementation of Phonics-Based Instruction among the Student Teachers'	
	2.6 Conclusion	
	METHODOLOGY	
3	3.1 Introduction	
	3.2 Research Methodology	
	3.3 Research Design	
	3.4 Population of the Study	
	3.5 Sampling Technique	
	3.6 Sample of the Study	

	3.7 Tool Administration	
	3.8 Validity and Reliability of the Tool	
	3.9 Scoring and Tabulation	
	3.10 Statistical Techniques used for Data Analysis	
	3.11 Data Analysis Tools	
	3.12 Conclusion	
	DATA ANALYSIS AND INTERPRETATION	
4	4.1 Introduction	
	4.2 Data Analysis	
	4.3 Data Interpretation	
	4.4 Statistical Techniques Used	
	4.5 Demographic Profile of the Student Teachers'	
	4.6 Analysis of Knowledge Scores of Student Teachers'	
	4.7 Analysis of Classroom Readiness Scores	
	4.8 Analysis of Phonics Practices and Instruction Scores	
	4.9 Statistical Analysis- t-test, ANOVA and Correlation	
	4.10 Testing of Hypotheses	
	4.11 Conclusion	
5	SUMMARY, FINDINGS AND CONCLUSION	
	BIBLIOGRAPHY	
	APPENDICES	

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
3.1	Distribution of the Sample	
3.2	Formation of questions in various dimensions	
3.3	Likert-Scale and the points given	
4.5.1	Distribution of Student Teachers by Major	
4.5.2	Distribution of Student Teachers by Age	
4.5.3	Distribution of Student Teachers by Gender	
4.5.4	Distribution of Student Teachers by Year of Study	
4.5.5	Distribution of Student Teachers by Level of Study	
4.5.6	Distribution by Type of Institution	
4.5.7	Distribution by Type of School Studied	
4.5.8	Distribution by Medium of Instruction	
4.5.9	Distribution by Locality	
4.5.10	Distribution by Father's Occupation	
4.5.11	Distribution by Mother's Occupation	
4.5.12	Distribution by Mother Tongue	
4.6.1	Knowledge Scores of Student Teachers Based on Major Subject (ANOVA)	
4.6.2	Knowledge Scores of Student Teachers Based on Type of School (t-test)	
4.6.3	Knowledge Scores of Student Teachers Based on Medium of Instruction (t-test)	
4.6.4	Knowledge Scores of Student Teachers Based on Locality (t-test)	
4.6.5	Overall Mean and Standard Deviation of Knowledge Scores	
4.7.1	Classroom Readiness Scores Based on Major Subject (ANOVA)	
4.7.2	Classroom Readiness Scores Based on Type of School (t-test)	
4.7.3	Classroom Readiness Scores Based on Medium of Instruction (t-test)	
4.7.4	Classroom Readiness Scores Based on Locality (t-test)	
4.7.5	Overall Mean and Standard Deviation of Classroom Readiness Scores	

4.8.1	Phonics Practices and Instruction Scores Based on Major Subject (ANOVA)	
4.8.2	Phonics Practices and Instruction Scores Based on Type of School (t-test)	
4.8.3	Phonics Practices and Instruction Scores Based on Medium of Instruction (t-test)	
4.8.4	Phonics Practices and Instruction Scores Based on Locality (t-test)	
4.8.5	Overall Mean and Standard Deviation of Phonics Practices Scores	
4.9.1	Results of t-test Analysis	
4.9.2	Results of ANOVA Analysis	
4.9.3	Correlation Matrix	

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
4.9.1	A bar graph of t-test Analysis	
4.9.2	Proportion of t-values by Category	
4.9.3	A bar graph of ANOVA Analysis Results	
4.9.4	Distribution of F-values	
4.9.5	A bar graph of Correlation Analysis Results	
4.9.6	Proportion of Correlation Strength Among Variables	

LIST OF APPENDICES

APPENDIX NO.	TITLE
A	Personal information of the student teachers'
B	The questionnaire on Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction

INTRODUCTION

CHAPTER-1

INTRODUCTION

A fundamental competence essential for academic achievement and educational advancement is reading. Proficiency in reading empowers students to assimilate material, understand content, and engage in classroom activities across various subjects. Among the methodologies used for instruction, phonics-based teaching is commonly related to traditional methods for teaching early literacy skills. Such a form of instruction is largely regarded as the best for teaching children to read. This is because phonics helps learners decode words according to their relationship with letters, thus helping them approach reading tasks with increased accuracy. It is expected that student teachers undertaking professional training will be able to comprehend both the theory and practice of phonics-based instruction, which is effective in aiding early readers. The assessment of educators' understanding and willingness to implement teaching methodologies is of significant importance. The present study seeks to investigate the knowledge and preparedness of student teachers in implementing phonics-based teaching methodologies. This examination has the potential to enhance teacher education curricula and elevate the overall quality of literacy instruction in educational institutions.

“Phonics is the understanding that there is a predictable relationship between phonemes (the sounds of spoken language) and graphemes (the letters and spellings that presents those sounds in written language)” (Sarwono, 2013).

1.1 Phonics-Based Instruction

Phonics involves a systematic form of instruction based on the relationship between sounds and letters in the English language. The method helps students learn about the connections between phonemes and graphemes, making it possible to decode words. Besides, it develops phonological awareness to allow learners to identify and manipulate sound elements such as syllables, rhymes, and phonemes.

Phonics also involves the understanding of the alphabetic principle, according to which letters and letter combinations represent the sound elements of the words. The method encompasses teaching techniques such as blending sounds, segmenting phonemes, constructing words, guided reading, and visualization of letter combinations. Teachers' knowledge and skills about phonics are important to create effective lessons for developing literacy skills among students.

The role of teachers in phonics instruction is vital. Thus, teachers should be well-versed in using the alphabetic principle and other techniques of phonics instruction. It means that teacher preparation programs should offer sufficient preparation in terms of phonics knowledge and techniques as well as the ability to plan lessons, manage classrooms, and assess progress. Assessing student teachers' ability to teach phonics is important to evaluate their readiness to become reading teachers.

According to Springer and the Digital Education Resource Archive (DERA), “Phonics-based instruction is a method of teaching reading and writing by focusing on the relationship between sounds (phonemes) and letters (graphemes). This approach, often used in beginning reading instruction, helps students decode words by understanding how letters and letter combinations correspond to specific sounds” (Jim Rose, 2006)

Phonics instruction can be considered to be basically built upon a number of important elements such as phonemic awareness, knowledge of letter-sound correspondence, as well as blending, segmenting, and decoding/encoding skills.

- Phonemic awareness, which is the ability to distinguish and identify individual sounds in words, is considered to be an important skill for the development of reading skills. This skill allows the learner to recognize sounds before associating them with letters.
- Moreover, letter-sound association involves the understanding of the sounds of specific letters or letter combinations. This skill helps learners associate written words with the sounds of the letters.
- Blending involves the method of combining sounds to spell words. For instance, the sounds ‘k,’ ‘a,’ and ‘t’ are blended to spell the word ‘cat.’
- Segmenting involves the breaking down of words into sounds. Segmenting is the way to disintegrate words into smaller sounds. Segmenting helps in reading and spelling.
- Decoding involves the application of your knowledge about the relationship between letters and sounds working together in order to read words. Encoding involves the use of corresponding letters to write the sounds when spelling words.

“Phonics instruction is a form of teaching activity that aims to assist beginners in comprehending how letters are connected to sounds in order to establish letter-sound relationships and spelling patterns, which they can then use in their reading and writing” (ILA, 2018; Lyon & Moore, 2003).

Therefore, in order for teachers to teach phonics adequately, they must be ready and possess the necessary knowledge and skills to design the plans, use the necessary materials, make the work interesting and enjoyable for the students, evaluate the students' progress, and give the students specific feedback. The training of teachers should be geared towards equipping the teachers with adequate knowledge of the importance of phonics and adequate skill in the use of effective phonics teaching techniques. The evaluation of the teachers' understanding or readiness would be useful in confirming the teachers' readiness to help the children acquire adequate reading skills.

1.2 Statement of the Problem

Reading is an important skill without which success at school and within society is impossible. Reading plays an important role in the process of cognitive development, as well as in obtaining information and understanding the written text. One of the most successful types of reading instructions involves using phonics, that is, teaching students the sound-letter association. Nevertheless, the effectiveness of such learning is heavily dependent upon teachers' awareness.

“A research problem statement is the descriptive statement which conveys the issue a investigator is trying to address through the study with the aim of informing the reader the context and significance of performing the study at hand” (Renu Bisht, 2023).

Phonemic awareness, sound-symbol correspondence, and decoding skills among learners depend significantly on teachers. In light of this, teacher training programs must ensure that prospective teachers possess the right level of expertise to teach reading using the phonics approach, despite differences in the intensity of training. However, classroom preparedness is also important since it denotes the capacity of student teachers to use the knowledge gained from theory in planning lessons, teaching techniques, and material selection. Without classroom preparedness, phonics teaching becomes ineffective. This research will assess the knowledge of student teachers on phonics-based instruction.

1.3 Definition of the key terms

- **Student Teachers**

Individuals in professional development within teacher education programs, such as a Bachelor of Education (B.Ed.), are termed student teachers. This study defines student teachers

as those in the preparatory phase for acquiring necessary skills and knowledge for effective teaching.

- **Knowledge**

The term ‘knowledge’ pertains to the comprehension and awareness exhibited by student teachers with respect to the theoretical principles and practical strategies associated with phonics instruction. Within the context of this research, knowledge signifies the conceptual and theoretical grasp student teachers hold concerning phonics-based instruction and its integral role in the development of reading skills.

- **Classroom Readiness**

The concept of ‘classroom readiness’ refers to the level of preparedness, assurance, and capability student teachers possess to implement their phonics instruction knowledge in authentic classroom settings. Such preparedness entails the capacity for effective planning of phonics teaching, selection of appropriate teaching strategies and materials, organization of phonics-related tasks, and assessment of students’ reading success.

- **Phonics Instruction**

The phonics instruction is a form of teaching approach that focuses on the relationship between letters and sounds, thus helping learners to read and interpret written texts. It thus helps in developing basic reading skills among learners.

1.4 Need for the Study

- The acquisition of early reading competencies is imperative for both academic success and lifelong educational pursuits. Reading underpins learning across all disciplines, with phonics-based instruction acknowledged as a highly effective approach for fostering early literacy.
- The effectiveness of phonics instruction is profoundly influenced by teachers’ expertise and pedagogical proficiency. Teachers are instrumental in guiding students to grasp sound-letter relationships and apply decoding strategies.
- Aspiring educators, or student teachers, must cultivate both a theoretical understanding and practical skills in phonics during their training.
- Divergences exist among teacher education programs regarding their emphasis on phonics training and hands-on experience, potentially impacting student teachers’ readiness to deliver reading instruction effectively.

- Hence, the present study seeks to evaluate the knowledge level and classroom preparedness of student teachers concerning phonics-based instruction. By examining these factors, it may be possible to pinpoint areas of deficiency in teacher training programs and provide recommendations for improvement.
- The results of this research may help inform teacher educators and curriculum developers in their efforts to improve the quality of phonics instruction in the classroom, in turn enabling teachers to more effectively facilitate early reading instruction.

1.5 Significance of the Study

The investigation holds substantial significance for teacher education and early literacy advancement. As reading is considered an essential skill which facilitates interdisciplinary learning, phonics-based instruction has been recognized as an approach to developing foundational reading skills. The effectiveness of phonics instruction in developing the skill of associating letters with sounds is significant in improving the efficiency of word decoding, reading fluency, and text comprehension. Therefore, the preparedness of the future educators in phonics instruction is significant in improving reading instruction.

The study emphasizes the role of phonics in early literacy development and provides an examination of student teachers' comprehension of phonics concepts, which include phonemic awareness, letter-sound correspondences, blending, segmenting, and decoding. It also investigates their classroom preparedness by various aspects such as lesson planning, the utilization of appropriate teaching materials, and effective pedagogical practices. Moreover, the result of the study may offer beneficial input for teacher education programs, curriculum developers, and educational policy architects. The findings can recognise training program gaps and propose methods to reinforce phonics instruction. Essentially, the study generates the improvement of teacher education, preparing future educators to promote early reading development with greater potency among learners.

1.6 Objectives of the Study

Primary Objectives

- To assess the level of knowledge of student teachers regarding phonics-based instruction using a standardized tool.
- To assess the level of classroom readiness of student teachers for implementing phonics-based instruction using a standardized tool.

Secondary Objectives

- To examine student teachers' understanding of key concepts related to phonics-based instruction.
- To identify the extent of preparedness of student teachers to implement phonics-based literacy instruction in classroom situations.

1.7 Hypotheses of the Study

The following null hypotheses were formulated for the present study:

H₀₁: There is no significant difference in the knowledge scores, classroom readiness scores, and phonics practices scores of student teachers according to their main subject area.

H₀₂: There is no significant difference between the knowledge score, classroom readiness score, and phonics practice score of the student teachers in terms of the type of school studied.

H₀₃: There is no significant difference among the scores of student teachers with regard to knowledge, classroom readiness, and phonics practices according to their mediums of instruction.

H₀₄: There is no significant difference in the scores obtained by student teachers with respect to knowledge, classroom readiness and phonics practices in relation to their location.

1.8 Limitations of the Study

When interpreting the findings of this study, the investigator has the following limitations to consider:

- It is specific to student teachers in certain Teacher Education Institutions, hence the findings cannot be generalized to other student teachers in different regions. The sample reports only a particular group who are presently enrolled in teacher training, whose experiences and openness may vary from those of student teachers elsewhere.
- The focus is mainly on student teachers' knowledge and readiness for phonics-based instruction. In spite of the fact that these are major indicators, the study doesn't examine actual classroom practices. Thus, the results show their perceived understanding and preparedness would rather their real-world performance in teaching phonics.
- The data relies on responses from a standardised research tool, so the findings largely depend on the honesty and accuracy of participants' answers. Their perceptions, self-

assessments, and interpretation of questions may affect the results, meaning responses perhaps not completely represent their actual knowledge or readiness.

For all these limitations, the study provides valuable insights into student teachers' knowledge and preparedness for phonics instruction, also offers effective guidance for enhancing teacher education programs focused on literacy.

1.9 Organization of the Research Report

The research report is methodically structured into five distinct chapters, and every chapter has a distinct function to perform in the explication of the research.

Chapter-1 Introduction

The introductory chapter expounds the research by providing a description of the problem statement, terminology, need and significance, research objectives, and limitations.

Chapter-2 Review of Related Literature

The second chapter comprises a literature review. This chapter reviews the existing literature on the research concerning the teaching of phonics, knowledge and perception of the educators, and classroom readiness and implementation.

Chapter-3 Research Methodology

The research methodology is expounded in the third chapter. This comprises a comprehensive description of the research design, the sampling population, the tool used to conduct the research, the further steps followed, and the statistical methods used to analyse the research.

Chapter-4 Data Analysis and Interpretation

The chapter has been dedicated to the presentation and explication of the data analysis. This chapter uses appropriate statistical tools to analyse the research data and interpret the findings.

Chapter-5 Summary, Findings and Conclusion

The final chapter comprises a summary of the research, uttering the principal findings, and conclusions. This chapter also comprises a description of the possible approaches to be followed in the future.

**REVIEW OF
LITERATURE**

CHAPTER-2

REVIEW OF LITERATURE

2.1 Introduction to Review of Literature

The review of literature, which is otherwise known as a Literature review, is a significant part of a research society. It refers to the systematic and organized study of published research works, books, articles, reports and other published materials on a specific topic of research. Through the review of literature, the investigator gains a thorough understanding of the existing knowledge and the scope of research in a specific field. Literature review is significant in the sense that it enables the investigator to gain a thorough understanding of what has already been studied on a specific topic of research, the methods and techniques of the previous investigators, and the conclusion and findings of the previous investigators. Through the review of the literature, the investigator can gain a strong theoretical and conceptual background of the present study. In educational research, the review of literature plays a significant role in the sense that it enables the investigator to gain a thorough understanding of the research problem, research questions, hypotheses, and the methods of research.

2.2 Purpose of Review of Literature

The purpose of the review of literature in the research study is to examine and analyse the existing knowledge in relation to the research problem. The review of literature enables the investigator to gain knowledge about what has been studied, what has to be further researched in the area. While reviewing the literature, the investigator becomes familiar with the concepts, theories, and research methods in the particular field of study. One of the major objectives of the literature review is to identify the gap that exists. Through the study of previous research works, the investigator is able to determine the areas that have not been sufficiently explored or need to be further investigated. This ensures that a meaningful research problem is chosen and the area of study. Another important purpose is to develop a theoretical and conceptual framework for the research.

The literature review process will help the investigator develop more refined research objectives, questions, and hypothesis. By knowing how other investigators have addressed similar issues, it is possible for the investigator to develop more refined research questions more appropriate hypotheses. In addition, the review of literature also helps to determine the appropriate methods and tools that may be appropriate for the research, based conducted on

the same or similar subjects. Therefore, the review of literature plays a vital role in the entire research process.

The literature pertaining to the study ‘Student Teachers’ Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction’ will be comprehensively reviewed under these following headings:

1. Conceptual framework and Teachers’ Perception of Phonics-Based Instruction.
2. Teacher’s Knowledge, Understanding and Effectiveness towards Phonics Instruction.
3. Classroom Readiness and Implementation of Phonics-Based Instruction among the Student Teachers’.

2.3 Conceptual Framework and Teachers’ Perception of Phonics-Based Instruction

Farah Nadeem and Saima Shaheen (2025) in the article “Phonics-Based and Sight-Word Approaches in Early Reading Development: A Conceptual Review” examined the role of phonics instruction and sight-word learning in early literacy development. The importance of early reading instruction is emphasized in the study, as it is an issue that has been the topic of debate, especially regarding the use and success of phonics and sight word methods. The theoretical, as well as the large-scale and classroom-based, aspects of the issue are reviewed in the study, and the findings clearly indicate that early reading instruction, especially the phonics method, is essential in the early acquisition of reading skills, as children are able to grasp the concept that letters and sounds are related, thus improving their skills in decoding words. However, the authors also indicate the importance of the sight word method in the acquisition of fluency in reading, and the importance of the combined methods in the acquisition of reading skills among young children.

N. S. M. M. Khair, S. Rafik-Galea, Farhana Yasin, M. Noor, and P. Armum (2025) aimed to assess the effectiveness of shared reading with decodable texts in promoting the early literacy skills of preschool children. The study found significant improvements in the experimental group’s literacy components, including the ability to recognize letters, the level of phonemic awareness, decoding ability, and oral reading fluency. From the study findings, it can be concluded that structured shared reading with decodable texts significantly improves preschoolers’ reading fluency and literacy skills. This study emphasizes the significance of phonics-based shared reading in preschoolers’ early childhood education and its potential to support young learners’ long-term academic success.

Sumudu Ovitigama (2025) in the study “Alphabetical Principle Versus Alphabetical Code in Early Reading Instruction” examined the roles of the alphabetic principle and the alphabetic code in early reading development. The effectiveness of both approaches, and identify some of the challenges associated with them. The study findings show that the alphabetic code, which emphasizes learners’ knowledge of systematic phonics rules linking sounds to written symbols, helps learners develop decoding and word recognition skills, especially for struggling learners. The study findings show that a combination of phonemic awareness and systematic phonics rules is the best approach for promoting early literacy development among learners. The study findings show that teachers should be flexible in their approaches to ensure learners develop overall literacy skills.

Saeromi Kim (2018) conducted a study that emphasizes the need to teach phonics to early learners of the English language. The study explains that besides phonics, phonological awareness and phonemic awareness also play an important role in developing the reading proficiency of learners. At times, the spelling and pronunciation of English words are quite confusing for early learners. Therefore, to overcome these problems, the study recommended the use of the onset-rime method. The study findings show that the use of the onset-rime method helps young learners to develop better word recognition skills. The study concludes that the inclusion of onset-rime phonics in the reading program is very beneficial for early reading development among English language learners.

C. Williams (2025) in the study “Phonics and Whole Language: Working Together to Accomplish a Common Goal” examined the relationship between phonics-based instruction and the whole language approach in developing early reading skills. The study states that Phonics teaching helps children learn to sound out unfamiliar words by dividing them into smaller parts and blending sounds together, using letter-sound relationships. The whole language approach, which focuses on meaning, context, and comprehension, is also important in reading development. The study concludes, while phonics and whole language approaches are both important, a combination of both approaches can result in a more effective reading education and overall reading development for the learner.

Deva Yanti Siregar, Khairani Khairani, and Yani Lubis (2023) conducted a study to investigate the role of phonological awareness in the development of literacy skills among young children. The study was conducted to investigate the relationship between phonological awareness and literacy skills such as decoding, spelling, word recognition, and comprehension. The results of the study revealed that children who possess better skills in phonological awareness tend to show better skills in phoneme awareness, word recognition, and

comprehension. The study has also highlighted the need to identify children who face difficulties in phonological awareness at an early stage and to intervene at an early stage to improve literacy skills.

Joanne P. Vesay and Karen L. Gischlar (2013), a study titled “The Big 5: Teacher Knowledge and Skill Acquisition in Early Literacy.” The study focused on the knowledge and training of early childhood teachers regarding the five essential components of reading skills developed by the National Reading Panel. These five components of reading skills are phonological awareness, alphabetic principle, fluency, vocabulary, and comprehension. Moreover, the research findings emphasized that professional development programs were the most common type of training, while mentoring opportunities were the least common type of training. According to the research findings, teachers need to have sufficient knowledge regarding the five critical domains of reading skills in order to provide effective instruction for struggling readers.

Daphne Phindile Mkwakwe (2012) in a study “The Role of the Educator in Identifying Learners with Reading Problems in the Intermediate Phase”. The research highlighted the significance of early reading instruction and the early identification of learners who experience reading difficulties in order to avoid long-lasting reading difficulties. The main findings of the research were the significant role educators play in assessing learners’ reading capabilities. The role involves observing the learners and undertaking various activities to assess learners’ capabilities. The difficulties included the learners’ difficulties in sequencing the letters of the alphabet correctly, the learners’ difficulties in segmenting words correctly, the learners’ difficulties in spelling words correctly, and the learners’ difficulties in recognizing words correctly. .

Alani Ramos (2019) in the article “Teacher Perceptions Regarding the Influence of Secondary Phonics Instruction on Student Reading” examined teachers’ perceptions of phonics-based instruction and its influence on students’ reading development. The results of the study showed that teachers generally believed in the effectiveness of phonics instruction in improving students’ fluency in reading and their external motivation in reading. A mentoring program was carried out for a year for teachers of primary grades to improve the quality of phonics instruction. The results of the program showed significant improvements in the quality of instruction by the teachers and significant improvements in students’ reading and spelling capabilities. The conclusion of the study was that phonics instruction should be carried out by well-trained teachers who possess adequate knowledge in phonology.

Walkey (2022) examined the influence of explicit phonics instruction on the development of early literacy skills among young learners. The importance of phonics was highlighted by the study, as it is essential for children to understand the relationship between words and sounds. The importance of teacher perceptions was also highlighted by the study, as it is essential for teachers to understand phonics to implement it in classrooms. The study revealed that teachers who have adequate theoretical knowledge and positive perceptions of phonics are more likely to implement effective strategies for teaching phonics to students. The study concluded that future teachers should be provided with both theoretical and practical knowledge of phonics to support children in developing emergent literacy skills.

2.4 Teacher's Knowledge, Understanding and Effectiveness towards Phonics Instruction

Daniel, J., Misquitta, R., & Nelson, S. (2025) conducted a comparative study among pre-service teachers in India and England. This study focused on the knowledge and preparedness of pre-service teachers in India and England regarding the teaching and promotion of basic reading skills, with specific emphasis given to the teaching and promotion of phonics. This study was based on the understanding that teachers have a major role to play in preventing reading difficulties. In this context, the knowledge and pedagogical practices of pre-service teachers regarding key reading domains, their confidence in addressing reading difficulties among students, and their preparedness regarding the teaching and promotion of reading and related areas, including phonics knowledge, were examined. This study is important in the context that it is based on an understanding of the knowledge and preparedness of student teachers regarding the teaching and promotion of phonics-based reading.

Dilgard, C., Hodges, T. S., & Coleman, J. M. (2022) provides explanation for the persistent stagnation in standardized literacy achievement has further fuelled the national and international dialogue on the best approaches to teaching reading, specifically within the context of the science of reading. These factors have been categorized into three main themes, which are the value and importance of professional learning to build a strong foundation in the understanding of the structure and nature of the English language, the value and importance of the provision of resources to aid the teacher with little or no knowledge in the field of teaching and learning, and the value and importance of the intensity of the intervention in the teaching and implementation of phonics in the classroom. These findings further emphasize the value and importance of assessing the knowledge and preparedness of the student teachers in the implementation and teaching of phonics in the classroom.

Y. M. Alshaboul and R. Almahasneh (2019) conducted a study titled “EFL Teachers’ Phonological Awareness Beliefs and Practices: Help or Prevent EFL Children Developing Reading.” The study aimed to explore the knowledge, beliefs, and practices of English as a Foreign Language (EFL) teachers in relation to the concept of phonological awareness and its contribution to the development of reading skills in young learners. However, the study also showed that a poor knowledge base on the part of the EFL teacher was a contributing factor to the difficulties experienced by children in the development of reading skills. From the study, it was evident that teacher education and training in the concept of phonological awareness and the teaching of reading skills would be instrumental in the development of reading skills in EFL children.

Stephanie Shedrow and Lindsay Stoetzel (2023) conducted a study titled “Making the Transfer: Preservice Teachers’ Technical and Pedagogical Knowledge of Phonics Instruction.” The study discusses the long-standing argument on the use of phonics and skills associated with the alphabetic code in the teaching of reading and also addresses the concern that many teacher training programs are not providing preservice teachers with the necessary skills to effectively teach reading. The study showed that having technical knowledge in the area of phonics does not automatically guarantee effective teaching skills. The study showed that many preservice teachers who scored high on technical measures were not as effective in demonstrating the pedagogical skills necessary to effectively teach phonics in a classroom situation.

Cheryl Wold, Andria L. Moon, Alan L. Neville, and Timothy T. Houge (2024) investigated the perception and actual knowledge of phonics instruction among preservice and inservice teachers. It was found that there are significant differences among the groups, and it was also found that teachers’ perception of phonics knowledge does not always correspond to actual knowledge. This study emphasizes the need for better phonics instruction in teachers’ education.

Linnea C. Ehri (2022) in the article “What Teachers Need to Know and Do to Teach Letter–Sounds, Phonemic Awareness, Word Reading, and Phonics” explains how children develop automatic word reading during the early stages of learning to read. The study emphasizes the fact that the development of reading skills in children depends on the mastery of the relationship between the written and spoken word, the awareness of the spoken word, decoding skills, and vocabulary development. It also emphasizes the fact that the teaching of systematic phonics will enable children to understand the relationship between the written and spoken word. The article emphasizes the fact that the teacher needs to have a good

understanding of phonics and effective teaching strategies to develop the foundation skills in children.

Sue Campbell (2018) in the article “Teaching Phonics without Teaching Phonics: Early Childhood Teachers’ Reported Beliefs and Practices” explored the relationship between teachers’ beliefs about literacy through play and their practice with phonics. Using a mixed-methods approach, the research revealed that many teachers preferred holistic and play-based methods over explicit commercial phonics. This research revealed that teachers believed children naturally learn to read and know their letters and sounds through ordinary school activities. This research is important because it reveals how beliefs affect phonics practice in early childhood education.

Tom Nicholson and Sheryll McIntosh (2020) explored the relationship between phonological and phonics knowledge and teachers’ self-efficacy in teaching. This research was based on 51 undergraduate teacher trainees from Malaysia who were about to teach English as a second language. A survey on phonological and phonics knowledge, as well as a questionnaire on teaching self-efficacy, was used as data collection tools. The findings of the research showed that the participants experienced difficulties in phonological and phonics knowledge; however, those participants who had higher phonological knowledge were more confident about their capacity to support their students’ learning.

Min Jie Chen, Wei Lun Wong, Guo Jie Yin, Ruey Shing Soo, and Yu Ling Dong (2024) investigated the effectiveness of the phonics instructional guide on the pedagogical content knowledge of pre-service EFL teachers. The participants were 140 pre-service teachers who were assigned to both the experimental and the control groups. The results indicated that the teachers who used the phonics instructional guide had better pedagogical content knowledge and more confidence in phonics instruction compared to the control group. The study concludes that improving the content knowledge of teachers in phonics instruction can improve the quality of teaching.

Jennifer S. Williams (2012), where the study focuses on teachers’ perceptions and pedagogical content knowledge about phonological awareness, phonics, and dyslexia. This study was conducted among kindergarten and first-grade teachers. This study focused on how teachers’ knowledge impacts reading intervention. From this study, it has been found that there are misconceptions among teachers concerning dyslexia, phonological awareness, and phonics. This study has concluded that proper professional development and assessment skills are required to be provided to the teachers so that children having reading problems can be identified.

2.5 Classroom Readiness and Implementation of Phonics-Based Instruction among the Student Teachers'

Laurent Gabriel Ndijuye, Pambas Tandika Basil, and Joyce Mbepera (2025) examined classroom practices for integrating phonics with whole-language approaches in early reading instruction. The research was based on an analysis of 76 research documents to identify trends regarding children's reading development. From the research, it was established that children can be effectively taught to develop reading skills through systematic phonics. This is especially important to children from socio-linguistic backgrounds with limited educational resources. On the other hand, it was established that phonics is not effectively implemented.

Glenda Valladolid and Michael Estremera (2026) conducted a systematic literature review to examine the various theoretical perspectives on the implementation of phonics in ESL/EFL contexts. The research found that it improves the learner's capacity to decode words, recognize words, and spell words. However, there are a number of factors that influence the implementation of phonics. For instance, there was a lack of training for teachers, resources, and a multilingual situation. Teacher training was also a significant aspect in implementing phonics. Moreover, the study revealed the importance of linking phonics with other language teaching strategies.

M. Pd Asbar (2025) discussed the Importance of teaching decoding and phonics skills in developing literacy. As the study indicates, reading is a cognitive skill that involves a range of different abilities. Among the reading abilities are phonological awareness, decoding, fluency, vocabulary, and comprehension. Of particular importance is the skill of phonics and decoding since they enable the reader to make sense of the relationship between the written word and the sounds. In doing this, the reader is able to read words that he or she does not know. According to this study, phonics plays a crucial role in the development of literacy skills, although it is essential to incorporate comprehension with phonics using modern techniques.

Jiraporn Sukkrong, Kanjana Chanphram, and Nanthanut Wiangin (2026) carried out a quasi-experimental study to create a phonics-based innovation for English pronunciation for Grade 1 students and determine the effectiveness of this innovation in enhancing English pronunciation for students. A total of 90 students from three schools were used for this study, and the one-group pre-test and post-test design was employed. It was found that students' scores in English pronunciation improved significantly using this phonics-based innovation in English pronunciation. In addition, students showed high levels of satisfaction with innovation-

based learning activities. The study showed that phonics-based innovations can effectively improve English pronunciation for young students.

Chen Min Jie, Wong Wei Lun, and Warid Mihat (2025) examined the competencies required for phonics instruction among Chinese EFL teachers. The study revealed a need for teachers' in-service to be provided with appropriate training in teaching phonics. Using literature review, surveys, and focus group discussions, a framework of essential knowledge in teaching phonics was developed. The results of the study revealed that teachers need to be knowledgeable in phonics decoding rules, phonemic awareness, sound systems, and teaching strategies in teaching phonics. A recommendation of a needs-based professional training program for teacher's in-service was made.

Sue Campbell (2019) in the article "Putting the Jigsaw Together: Reading and Teaching of Phonics in the Early Years," the author discussed the various methods used in the teaching of reading in early childhood education. The author of the article argues that there is a debate between the phonics-first method and the balanced literacy method. The author argues that while the phonics method is necessary in the development of reading skills in children, it is not enough in the teaching of reading. The author argues that reading should be taught together with other literacy skills. The article supports the balanced literacy approach in the teaching of reading.

Pambas Tandika Basil, Placidius Ndibalema, Godlove Laurent, Joyce Mbepera, and Prosper Gabriel (2024), the study was conducted by to examine how grade teachers teach phonics-based literacy, as well as how experience affects teaching. The study was carried out with a total of 305 participants. The findings showed that although teachers were provided with some support from training programs, they still encountered problems such as teaching a large class, a lack of teaching resources, and a lack of time for training when teaching phonics-based literacy. The study concluded with recommendations to support teachers' knowledge through continuous training, coaching, and mentoring.

Shannon Michele Price (2015) conducted a quasi-experimental study titled "The Teaching of Explicit Phonics Effects on Kindergarten Reading Readiness Scores." The study aimed to investigate the effect of the Ten-Minute Phonics program on kindergarten students' reading readiness. The results revealed that students who were instructed with an explicit phonics approach scored significantly higher on overall reading readiness and phonics skills than students who were instructed with an integrated approach. The results of this study support the positive effect of an explicit phonics approach.

Mauliy Hikmat (2016) investigated the effectiveness of using phonics instruction and storybooks in English reading classes to improve student participation. The study was based on the use of qualitative research methods such as observation, interview, and documentation. The study indicated that the students showed positive responses to the use of phonics-based activities and showed more positive involvement in classroom learning using tools such as flashcards, songs, games, and storybooks. However, the study also indicated challenges such as the lack of skills on the part of the teacher in using the phonics method and the lack of English storybooks in the school.

Misty Paul Black (2018) examined knowledge of phonics among pre-service teachers in a teacher preparation program through a design-based research study. In this study, 40 pre-service teachers who were enrolled in an introductory course in reading and phonics were used as participants. The study found that pre-service teachers improved significantly in their knowledge of phonics concepts, particularly in phonemic awareness and orthography. The study emphasizes the value of teacher education courses in enhancing pre-service teachers' knowledge of phonics for effective teaching in reading.

2.6 Conclusion

The review of the literature reveals that the role of phonics instruction is significant in the development of early literacy skills among learners. It indicates that various studies have emphasized the importance of phonics instruction in the development of learners' decoding skills, reading readiness skills, pronunciation skills, and reading skills. It also reveals that the use of phonics-based activities and strategies increases the learners' involvement in the learning process.

The reviews indicate that there is a lack of instructional resources, the training programs are not effective, and there is a gap between theory and practice in the implementation of the phonics instruction. The review of the literature tells the significance of developing the teacher training programs and the importance of integrating the phonics instruction with the overall literacy instruction. It also illustrates the significance of the present study based on the importance of investigating the student teachers' perception regarding the phonics-based instruction.

METHODOLOGY

CHAPTER- 3

METHODOLOGY

3.1 Introduction

Research methodology is the methodology employed in carrying out research by a investigator. Research methodology is important because it enables the investigator to collect, analyse and interpret data efficiently. An efficient research methodology guarantees reliability and validity of the findings of the research.

The present study revolves around Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction. Phonics-based instructions help learners develop knowledge about the relationship between letter sounds and spellings in their efforts to learn how to read. Since student teachers are the educators of the future, they must have adequate knowledge about phonics-based instruction as well as readiness in implementing it in their teaching practices. This research attempts to investigate student teachers' knowledge and perception about phonics-based instructions.

3.2 Research Methodology

A research methodology describes the techniques and procedures used to identify and analyse information regarding a specific research topic. It is a process by which investigators design their study so that they can achieve their objectives using the selected research instruments. It includes all the important aspects of research, including research design, data collection methods, data analysis methods, and the overall framework within which the research is conducted.

“Methodology in research is defined as the systematic method to resolve a research problem through data gathering using various techniques, providing an interpretation of data gathered and drawing conclusions about the research data. Essentially, a research methodology is the blueprint of a research or study”. (Murthy and Bhojanna, 2009)

3.3 Research Design

“A design is the general strategy for conducting a research study. The nature of the hypothesis, the variables involved, and the constraints of the ‘real world’ all contribute to the selection of design.” (Gay and Airasian, 2000)

A research design is described as a general framework that guides the investigator in conducting a research project. In other words, it is a strategy used to obtain answers to research questions. The research design guides the entire process of collecting and analysing data systematically. For this study, the descriptive survey design is employed. Descriptive surveys are often used in education to gather information about the current conditions, attitudes, views, and opinions of respondents.

The selected design is suitable for the research since it focuses on examining the knowledge and readiness of student teachers for teaching using phonics-based strategies. By employing this technique, the investigator is able to obtain feedback from a sample of student teachers regarding their views and readiness to teach using phonics. Using the selected design, the investigator is able to collect information from respondents, learn their knowledge base and views, assess their attitudes and readiness to teach phonics, and interpret data systematically. Hence, this design is appropriate for this research.

3.4 Population of the Study

Population refers to the entire group of individuals or elements that the investigator intends to study. The present study was conducted among 142 student teachers studying in selected teacher education institutions. These participants were chosen using purposive sampling to obtain relevant information regarding their knowledge and classroom readiness in implementing phonics-based instruction.

3.5 Sampling Technique

Sampling technique means the approach that the investigator applies in selecting participants from the population of interest for conducting the study. The choice of the right sampling technique depends on the aims of the study and the nature of the population under investigation. In the current study, the investigator employed the purposive sampling technique. It is a type of non-probability sampling approach in which the investigator consciously selects participants based on specific characteristics related to the research topic.

Student teachers were selected as participants of the present study as they are the people undergoing training to qualify as teachers in future. They receive professional and academic training in the field of teaching and should acquire the necessary skills and knowledge to conduct efficient teaching practices in the classroom, which include phonics-based instructions for developing literacy skills among learners.

The purposeful sampling method is seen to be applicable for this study due to the following reasons:

- This research deals with student teachers who prepare themselves for a career in teaching.
- These individuals have academic and professional experience about teaching.
- This helps the investigator to collect information only from those individuals who are most suited to fulfil the purpose of the study.

3.6 Sample of the Study

Sample is the selection of a smaller group from the whole population that represents the whole population of the research. In the case of the current research, a total number of 142 student teachers from teacher education colleges have been chosen as a sample. This was done through the purposive sampling method as they were enrolled in the teacher education program and were appropriate enough to provide data related to their knowledge and classroom preparedness in using phonics-based instruction.

The sample included student teachers from three different teacher education colleges.

Table 3.1
Distribution of the Sample

S. No.	Name of the Institution	Number of Student Teachers
1	Dr. S.N.S College of Education	55
2	C.S.I Bishop Appasamy College of Education	47
3	Michael Job Memorial College of Education for Women	40
Total		142

As depicted in the table above, the overall sample size for this study involves 142 student teachers who belong to different teacher training institutes. Out of the total number of respondents, 55 were from Dr. S.N.S College of Education, 47 were from C.S.I Bishop Appasamy College of Education, while 40 were from Michael Job Memorial College of Education for Women.

3.7 Tool Administration

The sharing of the tool is a key part of collecting data. In this study, the pilot study was carried out during the mini project stage of the research. The study was conducted with a group

of student teachers who were not part of the final sample used in the main study. The questionnaire of pilot study, which had 61 questions, was checked by experts who specialize in teaching English, teaching phonics, and training teachers. Once the questionnaire was proven to be valid and reliable, the final version with 60 questions was used for the main study. In the present study, the questionnaire developed by the investigator was administered to the selected sample of student teachers through Google Forms. The questionnaire is distinctly divided into two main sections:

- **Demographic Information**

Demographic information gathers essential information, including participants' names, classes, majors, genders, the names of their institutions, years and levels of study, types of institutions, types of schools previously attended, locations, mediums of instruction, localities, and the occupations of both parents. This comprehensive data enables effective categorization of participants and facilitates in-depth subgroup analysis.

- **Perception Scale and Understanding Test**

The scale consists of 60 objective questions designed on a 5-point Likert scale, where 1 signifies "Strongly Disagree" and 5 signifies "Strongly Agree". The questions are strategically formulated to assess student teachers' attitudes, beliefs, and confidence regarding phonics-based instructional practices. Furthermore, this segment rigorously evaluates their conceptual knowledge of phonics, covering critical topics such as phoneme-grapheme correspondence, blending, segmenting, decoding, and syllable awareness.

3.8 Validity and Reliability of the tool

- Validity is defined as the degree to which an instrument is capable of measuring the variable intended to be measured. Validating the instrument ensures its ability to effectively capture the targeted variables.
- Reliability is concerned with the internal consistency and stability of a research instrument with respect to measuring a certain variable. A reliable instrument should yield similar results when administered to similar subjects using similar circumstances.

The validity and reliability of the questionnaire were confirmed through the pilot study. Initially, the questionnaire consisting of 61 items was critically evaluated by experts from the areas of English language education, phonics teaching, and teacher education and 60 items

were valid. The results of the reliability test revealed that the questionnaire was reliable, ensuring the suitability of the instrument to measure the targeted variable.

The questionnaire was created based on six dimensions, with 10 questions for each.

Table 3.2

Formation of questions in various dimensions

Dimensions	No. of questions
Awareness and knowledge of phonics	10
Perceived importance of phonics instruction	10
Confidence in teaching phonics	10
Application of phonics in teaching practices	10
Assessment of phonics learning	10
Attitude towards phonics- based instruction	10

The entire tool was developed in Google Forms to streamline distribution, data collection, and preliminary analysis. This digital format provides participants with quick access while ensuring organized data capture in a spreadsheet format, ready for thorough statistical processing.

Participants received the Google Form link through effective online sharing and were instructed to complete the questionnaire independently. The use of this online tool allows for immediate identification of incomplete responses and guarantees efficient data storage for comprehensive analysis.

The link of the form is given below:

https://docs.google.com/forms/d/e/1FAIpQLSefIaSSSpTd_KJG5LNhbOizHtVVNmzEYdA5ZCdtPAYayM9FWA/viewform

3.9 Scoring and Tabulation

The responses collected through the Google Form were automatically compiled into a Google Spreadsheets for ease of scoring and tabulation. Perception scale scoring method is formulated.

The questionnaire consisting of 60 Likert-type items each scored on a 5-point scale:

Table 3.3
Likert-Scale and the points given

Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

The total perception score of each participant was calculated by summing the scores of all 60 items. Higher scores indicated a more positive perception of phonics-based instruction. Descriptive statistics (mean, standard deviation, and range) were computed for the overall perception scores.

3.10 Statistical techniques used for Data Analysis

In order to organize, tabulate, and analyse the data collected from the participants, appropriate statistical techniques were applied. Statistical analysis is an important process involved in research as it facilitates the investigator to interpret the information in a meaningful way. In the present study, the data collected through the survey instrument were analysed using appropriate statistical techniques to assess the knowledge, perception, and readiness of the student teachers for implementing phonics-based instruction

In the present study, the following statistical techniques were employed:

- **Percentage**

Percentage is one of the simplest and most frequently used methods of statistical analysis in the field of education. This method assists in presenting data in a more intelligible form by presenting the proportion of responses compared to the total number of respondents. In the present study, the percentage technique was used to illustrate the demographics of the respondents and to provide the responses of the participants to various questions in the questionnaire.

- **Mean**

Mean refers to the average value of a group of figures and is arrived at by dividing the total score by the number of respondents. The mean gives an indication of the tendency of the data. In this case, the mean score was computed to ascertain the average value of the knowledge, perception, and readiness of the student teachers towards using phonics-based instruction in their classrooms.

- **Standard Deviation**

Standard deviation refers to a statistical tool that measures the dispersion of the scores around the mean value. Standard deviation is useful in establishing the degree of variation in the responses from the average score. In this case, the standard deviation will be useful in finding out whether the scores from the participants deviated from the mean or not. Low standard deviation implies that the scores are close to the mean, while high standard deviation implies that there is a wide dispersion from the average score.

3.11 Data Analysis Tools

In the current study, the data were subjected to analysis through the use of statistical and spreadsheet programs in order to increase the accuracy of the results and the systematic interpretation of findings. The main computerized tools employed for the purpose of analysing data included Statistical Package for the Social Sciences (SPSS) and Microsoft Excel.

- **SPSS (Statistical Package for the Social Sciences)** was employed for conducting various statistical operations such as t-test, ANOVA test, and correlation analysis. SPSS is an extremely popular tool for educational investigators as it helps organize, calculate and interpret the collected data. This computerized program is used by investigators because it allows managing massive databases, executing complicated calculations, and providing the user with different statistical outputs such as charts and tables. In this study, SPSS was helpful in analysing group differences and variable relationships regarding student teachers' knowledge and classroom readiness for phonics instruction.
- Data collection was done using **Microsoft Excel** to aid in the entry and organization of information from collected responses. Since data was collected via Google Forms, they were transferred to a table structure and organized to prepare them for further analysis. Excel facilitated simple calculations and tabulation as well as the preparation of data to be imported into SPSS.

3.12 Conclusion

In this chapter, a detailed explanation was provided about the research methodology employed in conducting the current study. The research methodology includes the research design, target population, sample, sampling technique, instrument used for the study, administration of the instrument, and data analysis techniques. A descriptive survey research design was employed for the current study to determine the existing knowledge, perception, and readiness of the student teachers concerning the implementation of phonics-based instruction. The target population for the current study comprised the student teachers admitted in the teacher education institutions, and a sample was selected using the purposive sampling technique. The instrument used in the study was a structured questionnaire that was designed using Google Forms.

Data collection was carried out systematically using the instrument. The data obtained were analysed using appropriate statistical techniques such as percentage, mean, and standard deviation. SPSS and Microsoft Excel were also used for performing statistical analyses like t-test, ANOVA, and correlation. Therefore, the methodology used in the current study was quite scientific and reliable enough to ensure that data collection and analysis could be carried out systematically and effectively, allowing the investigator to accomplish the goals of the study.

DATA ANALYSIS AND INTERPRETATION

CHAPTER-4

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

Data analysis and data interpretation represent an important component of the research study under consideration. Once the required data are collected from the respondents, the investigator will have to process the information gathered, make necessary calculations, and explain the results so that certain valid conclusions could be made. Thus, the first component, i.e., data analysis represents the process of systematized examination and classification of data, its tabulation and summarization. In contrast, data interpretation means explanation of the analysed data and establishing relations between the results obtained and the objectives of the study.

Within the context of the current study, it is proposed to use an organized approach to data organization and analysis. Responses collected from student teachers with the help of a structured questionnaire will be properly organized and processed. Descriptive and inferential statistical approaches will be used for data analysis purposes. Thus, some descriptive statistics, including percentage, mean, and standard deviation will be calculated when describing the demographic characteristics of the respondents and responses to particular questions raised. Inferential statistical methods, like t-test, ANOVA, and correlation will also be utilized. The findings derived from the analysis have been compiled in the form of tables, figures, graphs, and charts for better comprehension and interpretation. Following each table is an interpretation of its content in relation to the goals of the research.

4.2 Data Analysis

Data Analysis is the methodical approach to organizing, analysing, and interpreting the gathered data to derive information and patterns. For instance, when conducting research, the data gathered from the respondents cannot offer any conclusions. Therefore, there is a need to classify the gathered data, make tables, and perform statistics to interpret the information.

The process of data analysis consists of many aspects, such as editing, coding, classification, tabulating, and statistical calculations. There are various forms of analysis used by investigators in interpreting data, including percentages, mean, standard deviation, t-test, ANOVA, and correlation.

4.3 Data Interpretation

Data Interpretation is the step where one attempts to provide an explanation and assign a meaning to the data after its analysis, thereby enabling him or her to make sense of the findings. After analysis of the data using the chosen statistical tools, the investigator will interpret the data by attempting to determine what the data imply concerning the study that has been conducted.

Data interpretation assists the investigator in determining the meaning of the data, making inferences, and deriving conclusions from the data analysis.

4.4 Statistical Techniques Used

These are some of the statistics utilized in analysing data:

- **Percentage Analysis:** This was used to establish the frequency distribution of answers by student teachers.
- **Mean and Standard Deviation** These statistics were applied to find out the average value of answers provided and their deviation.
- **Independent Sample t-test:** This was used to establish the existence of any significant difference between two respondents' groups.
- **One-way ANOVA:** It was used to examine differences between more than two respondent groups.
- **Correlation Analysis:** This was used to evaluate the correlation among variables pertaining to phonics instruction.

The statistical analyses were done using SPSS and Microsoft Excel.

4.5 Demographic Profile of the Student Teachers

The demography of the respondents is the background information about the student teachers who were used for this study. The demographic variables that have been used in this study include major subject, age, gender, year of study, level of study, type of institution, type of school, medium of instruction, locality, occupation of parents, and mother tongue. The demographic variables have been analysed in terms of frequencies and percentages as illustrated in the subsequent tables below:

Sample Distribution by Major Subject

Table 4.5.1

Distribution by Major

	No.	Percent
English	60	42.3
Mathematics	27	19.0
Biological Science	20	14.1
Physical Science	24	16.9
Computer Science	11	7.7
Total	142	100.0

As presented in the table, 42.3% of the student teachers are from the English major group, being the largest among all groups. The Mathematics, Physical Science, and Biological Science groups have fairly large percentages of 19.0%, 16.9%, and 14.1% respectively, while the Computer Science group is the smallest 7.7%.

Sample Distribution by Age

Table 4.5.2

Distribution by Age

	No.	Percent
21-24 years	122	85.9
25-28 years	20	14.1
Total	142	100.0

From the above table, it can be seen that the maximum number of participants are from the age group of 21-24 years which is 85.9%. This suggests that most of the student teachers lie in the common age group for teacher education courses.

Sample Distribution by Gender

Table 4.5.3

Distribution by Gender

	No.	Percent
Female	142	100.0

As per the table, all the respondents are female student teachers constituting 100% of the sample size.

Sample Distribution by Year of Study

Table 4.5.4

Distribution by Year of Study

	No.	Percent
I year	72	50.7
II year	70	49.3
Total	142	100.0

From the table, one can see that there is almost equal distribution of the respondents, whereby 50.7% are in their first year of the teacher education programme while 49.3% are in their second year.

Sample Distribution by Level of Study

Table 4.5.5

Distribution by Level of Study

	No.	Percent
UG	114	80.3
PG	28	19.7
Total	142	100.0

As per the table, most of the respondents have undergraduate qualifications (80.3%), while only 19.7% have postgraduate qualifications.

Sample Distribution by Type of Institution

Table 4.5.6

Distribution by Type of Institution

	No.	Percent
Aided	85	59.9
Government	21	14.8
Self-Finance	36	25.4
Total	142	100.0

From the table, most of the student teachers (59.9%) are from aided institutions; others include self-financed (25.4%) and government institutions (14.8%).

Sample Distribution by Type of School Studied

Table 4.5.7

Distribution by Type of School Studied

	No.	Percent
Private	85	59.9
Government	57	40.1
Total	142	100.0

The findings indicate that 59.9% of the respondents were educated in private schools, while 40.1% went to government schools.

Sample Distribution by Medium of Instruction

Table 4.5.8

Distribution by Medium of Instruction

	No.	Percent
English	120	84.5
Tamil	22	15.5
Total	142	100.0

The table shows that the majority of the student teachers (84.5%) had English medium education while 15.5% had Tamil medium education.

Sample Distribution by Locality

Table 4.5.9

Distribution by Locality

	No.	Percent
Rural	62	43.7
Urban	80	56.3
Total	142	100.0

From the table, 56.3% of the respondents' hail from urban areas while 43.7% hail from rural areas.

Sample Distribution by Father's Occupation

Table 4.5.10

Distribution by Father's Occupation

	No.	Percent
Private	74	52.1
Government	20	14.1
Daily wages	42	29.6
Business	4	2.8
Agriculture	2	1.4
Total	142	100.0

From the table, more than half (52.1%) of the respondents' fathers work in the private sector, while 29.6% are daily wage earners.

Sample Distribution by Mother's Occupation

Table 4.5.11

Distribution by Mother's Occupation

	No.	Percent
Private	23	16.2
Government	12	8.5
Daily wages	15	10.6
Housewife	92	64.8
Total	142	100.0

As seen in the table, the majority of the respondents' mothers (64.8%) are housewives, while the rest work in the private, government, or daily wage sector.

Sample Distribution by Mother Tongue

Table 4.5.12

Distribution by Mother Tongue

	No.	Percent
Malayalam	19	13.4
Tamil	114	80.3
Kannada	9	6.3
Total	142	100.0

The vast majority of those surveyed (80.3%) consider Tamil to be their native language, while Malayalam and Kannada account for 13.4% and 6.3%, respectively.

4.6 Analysis of Knowledge Scores of Student Teachers

In the present study, the analysis of the knowledge scores of student teachers was presented regarding phonics-based instruction. The scores were analysed based on selected demographic variables such as major subject, type of school, medium of instruction, and locality using appropriate statistical techniques such as ANOVA and t-test.

Knowledge Scores of Student Teachers Based on Major Subject (ANOVA)

Table 4.6.1

Based on Major Subject

		Knowledge Score		
		Mean	S.D	No.
Major	English	34.32	5.24	60
	Mathematics	35.41	4.65	27
	Biological Science	36.75	5.87	20
	Physical Science	35.42	5.90	24
	Computer Science	36.91	4.37	11
total		35.25	5.30	142

ANOVA Result

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	128.879	4	32.220	1.153	Ns
Within Groups	3827.994	137	27.942		
Total	3956.873	141			

Ns – Not significant

Critical value:2.438

According to the table, the highest mean score for knowledge is found among Computer Science student teachers (36.91), Biological Science student teachers (36.75), Physical Science student teachers (35.42), Mathematics student teachers (35.41), and English student teachers (34.32). Since the F-value (1.153) computed is lower than the critical F-value (2.438), there is no statistically significant difference among the knowledge scores of student teachers according to their major subjects.

Knowledge Scores of Student Teachers Based on Type of School (t-test)

Table 4.6.2

Based on Type of School

		Knowledge Score		
		Mean	S.D	No.
Type of School	Private	35.52	5.28	85
	Government	34.86	5.35	57
total		35.25	5.30	142

t-test Result

t	df	Sig.
0.724	140	Ns

Ns – Not significant

Critical value:1.977

From the table, it can be observed that the average knowledge score for the student teachers who had their education from the private schools is 35.52, which is slightly greater compared to the average knowledge score for the student teachers from government schools, which is 34.86. Nevertheless, the t-value obtained from the calculation is smaller than the critical value.

Knowledge Scores of Student Teachers Based on Medium of Instruction (t-test)

Table 4.6.3

Based on Medium of Instruction

		Knowledge Score		
		Mean	S.D	No.
Medium	English	34.92	5.41	120
	Tamil	37.09	4.28	22
total		35.25	5.30	142

t-test Result

t	df	Sig.
1.783	140	Ns

Ns – Not significant

Critical value:1.977

The results indicate that the student teachers that learned under the Tamil language medium had slightly higher means of knowledge as compared to the student teachers that learned under the English language medium. Nevertheless, the t-value (1.783) obtained from this study was lower than the critical value (1.977).

Knowledge Scores of Student Teachers Based on Locality (t-test)

Table 4.6.4

Based on Locality

		Knowledge Score		
		Mean	S.D	No.
Locality	Rural	35.76	5.17	62
	Urban	34.86	5.40	80
total		35.25	5.30	142

t-test Result

t	df	Sig.
0.999	140	Ns

Ns – Not significant

Critical value:1.977

From the table, it can be observed that the mean knowledge score for rural student teachers (35.76) is marginally greater than the mean knowledge score for urban student teachers (34.86). But the t value (0.999) obtained is smaller than the critical value (1.977).

Overall Mean and Standard Deviation of Knowledge Scores

Table 4.6.5

Overall Mean and Standard Deviation

Variable	N	Mean	Standard Deviation
Knowledge Scores	142	35.25	5.30

Hence, the average knowledge score of the student teachers is 35.25, which shows a standard deviation of 5.30, implying that there is considerable variation in the scores of knowledge.

4.7 Analysis of Classroom Readiness Scores of Student Teachers

The results of the analysis done on the scores obtained by the student teachers regarding their classroom readiness to use phonics will be presented. The analysis was done based on variables such as major subjects, types of schools attended, medium of instruction, and locality.

Classroom Readiness Scores Based on Major Subject (ANOVA)

Table 4.7.1

Based on Major Subject

		Classroom Readiness Score		
		Mean	S.D	No.
Major	English	73.70	11.87	60
	Mathematics	72.30	10.36	27
	Biological Science	79.15	10.52	20
	Physical Science	72.17	12.86	24
	Computer Science	80.45	8.03	11
total		74.46	11.54	142

ANOVA Result

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1122.484	4	280.621	2.177	Ns
Within Groups	17658.840	137	128.897		
Total	18781.324	141			

Ns – Not significant

Critical value:2.438

From Table, it is evident that Computer Science students (teachers) are the most classroom ready at 80.45, followed by Biological Science (79.15), English (73.70), Mathematics (72.30), and Physical Science (72.17).

As the computed F value of 2.177 is less than the critical F value of 2.438 at 0.05 level of significance, there exists no statistical difference in classroom readiness among students (teachers) in relation to major subject.

Classroom Readiness Scores Based on Type of School (t-test)

Table 4.7.2

Based on Type of School

		Classroom Readiness Score		
		Mean	S.D	No.
Type of School	Private	75.66	11.59	85
	Government	72.68	11.33	57
Total		74.46	11.54	142

t-test Result

t	df	Sig.
1.512	140	Ns

Ns – Not significant

Critical value:1.977

From the table, student teachers from private institutions have a marginally better average classroom readiness score (75.66) compared to their counterparts from government institutions (72.68). Nevertheless, the computed t-value (1.512) falls below the critical value (1.977). Hence, there is no statistical significance between the two variables.

Classroom Readiness Scores Based on Medium of Instruction (t-test)

Table 4.7.3

Based on Medium of Instruction

		Classroom Readiness Score		
		Mean	S.D	No.
Medium	English	73.98	11.89	120
	Tamil	77.14	9.19	22
total		74.46	11.54	142

t-test Result

t	df	Sig.
1.183	140	Ns

Ns – Not significant

Critical value:1.977

The table shows that there is a slight increase in the classroom readiness of student-teachers who underwent Tamil medium study (77.14) than those who were enrolled in the English medium (73.98). Nevertheless, the computed t-value (1.183) is lower than the critical value (1.977).

Classroom Readiness Scores Based on Locality (t-test)

Table 4.7.4

Based on Locality

		Classroom Readiness Score		
		Mean	S.D	No.
Locality	Rural	74.27	11.45	62
	Urban	74.61	11.68	80
total		74.46	11.54	142

t-test Result

t	df	Sig.
0.173	140	Ns

Ns – Not significant

Critical value:1.977

However, the table shows mean scores for classroom readiness among both groups of students in rural (74.27) and urban settings (74.61) are very close to each other. As observed, the obtained t-statistic (0.173) is below the critical value (1.977). Hence, the difference is not statistically significant.

Overall Mean and Standard Deviation of Classroom Readiness Scores

Table 4.7.5

Overall Mean and Standard Deviation

Variable	N	Mean	Standard Deviation
Classroom Readiness Scores	142	74.46	11.54

This results that the average classroom readiness score is 74.46, while the standard deviation is 11.54, suggesting a moderate level of variability in classroom readiness among the student teachers.

4.8 Analysis of Phonics Practices and Instruction Scores

The findings of the present study relate to the analysis of phonics practice and scores of student teachers on phonics instruction. In this regard, an analysis has been conducted based on ANOVA and t-test in order to see if there are any differences in phonics instructional practices related to subjects, schools, media, and locality. The findings are as follows.

Phonics Practices and Instruction Scores Based on Major Subject (ANOVA)

Table 4.8.1

Based on Major Subject

		Phonics practices and instructions score		
		Mean	S.D	No.
Major	English	111.67	16.09	60
	Mathematics	110.63	15.00	27
	Biological Science	120.40	14.30	20
	Physical Science	107.75	17.36	24
	Computer Science	122.27	7.79	11
total		112.86	15.87	142

ANOVA Result

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2958.072	4	739.518	3.113	*
Within Groups	32543.111	137	237.541		
Total	35501.183	141			

*-Significant at 5% level

Critical value:2.438

From Table, Computer Science students have the highest score for phonics practices and instructions (122.27), then Biological Science (120.40), English (111.67), Mathematics (110.63), and Physical Science (107.75). The computed F-value is 3.113, which is greater than the tabular value of 2.438. Thus, the null hypothesis is rejected, indicating that there exists a statistically significant difference in phonics practices scores according to major subjects.

Phonics Practices and Instruction Scores Based on Type of School (t-test)

Table 4.8.2

Based on Type of School

		Phonics practices and instructions score		
		Mean	S.D	No.
Type of School	Private	114.04	15.57	85
	Government	111.11	16.28	57
total		112.86	15.87	142

t-test Result

t	df	Sig.
1.079	140	Ns

Ns – Not significant

Critical value:1.977

From the table, the mean scores for student teachers who attended private institutions (114.04) appear to be marginally better than those who attended government institutions (111.11). Nevertheless, the obtained value for t (1.079) is smaller than the critical value (1.977).

Phonics Practices and Instruction Scores Based on Medium of Instruction (t-test)

Table 4.8.3

Based on Medium of Instruction

		Phonics practices and instructions score		
		Mean	S.D	No.
Medium	English	112.17	16.33	120
	Tamil	116.64	12.71	22
total		112.86	15.87	142

t-test Result

t	df	Sig.
1.217	140	Ns

Ns – Not significant

Critical value:1.977

From the findings, it is clear that student teachers using Tamil as their medium of instruction have higher scores of phonics practice than student teachers using English as their medium of instruction, but the computed t value (1.217) is lesser than the critical value (1.977).

Phonics Practices and Instruction Scores Based on Locality (t-test)

Table 4.8.4

Based on Locality

		Phonics practices and instructions score		
		Mean	S.D	No.
Locality	Rural	112.68	17.36	62
	Urban	113.00	14.72	80
total		112.86	15.87	142

t-test Result

t	df	Sig.
0.120	140	Ns

Ns – Not significant

Critical value:1.977

As per the table below, both rural and urban student teachers' phonics practice scores have nearly equal values. This is because the calculated value for t is lower than that of the critical value.

Overall Mean and Standard Deviation of Phonics Practices Scores

Table 4.8.5

Overall Mean and Standard Deviation

Variable	N	Mean	Standard Deviation
Phonics Practices Scores	142	112.86	15.87

From the table above, it can be noted that the average phonics practices and instruction scores for all groups of student teachers is 112.86, with a standard deviation of 15.87.

4.9 Statistical Analysis

The data gathered were analysed using suitable statistical methods like t-test, ANOVA, and correlation analysis. The use of these statistics enabled the examination of the distinctions and relations between variables pertaining to knowledge, classroom readiness, and phonics instruction of student teachers.

1. t-test Analysis

The t-test was used to determine whether there is a significant difference in the mean scores of student teachers with respect to type of school, medium of instruction, and locality.

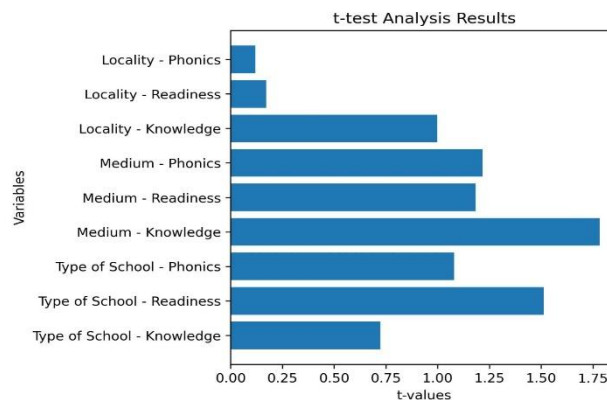
Table 4.9.1

Results of t-test Analysis

Variable	Dimension	t-value	Result
Type of School	Knowledge Score	0.724	Not Significant
	Classroom Readiness	1.512	Not Significant
	Phonics Practices	1.079	Not Significant
Medium of Instruction	Knowledge Score	1.783	Not Significant
	Classroom Readiness	1.183	Not Significant
	Phonics Practices	1.217	Not Significant
Locality	Knowledge Score	0.999	Not Significant
	Classroom Readiness	0.173	Not Significant
	Phonics Practices	0.120	Not Significant

Figure 4.9.1

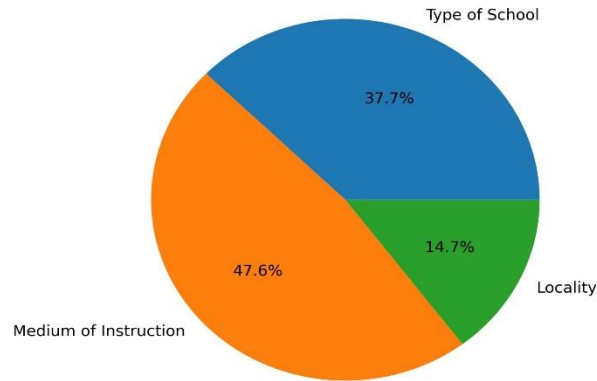
A bar graph of t-test Analysis Results



From the analysis above, the values obtained from the t-calculated test are less than the tabulated values (1.977) at the 0.05 level of significance. This implies that there is no statistically significant difference in the students' scores on the knowledge, classroom preparedness, and phonics tests based on the schools they attend.

Figure 4.9.2

Proportion of t-values by Category



From the graph above, the percentage of the total t-value from Medium of Instruction is 47.6%, followed by 37.7% for Type of School, whereas Locality provides only 14.7%. This implies that the variations in the medium of instruction and type of school have more impact on the student teachers' perception and understanding of phonics teaching than locality.

2. ANOVA Analysis

The Analysis of Variance (ANOVA) test was employed to find out if there was a statistically significant difference between the scores of the student teachers depending on their subject major.

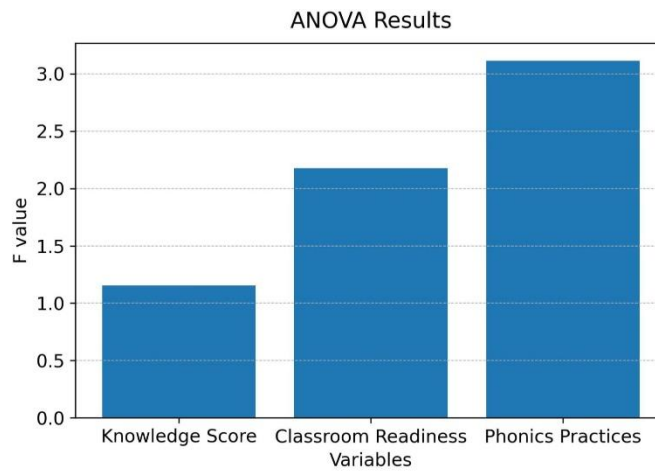
Table 4.9.2

Results of ANOVA Analysis

Variable	F-value	Result
Knowledge Score	1.153	Not Significant
Classroom Readiness Score	2.177	Not Significant
Phonics Practices and Instruction Score	3.113	Significant

Figure 4.9.3

A bar graph of ANOVA Analysis Results

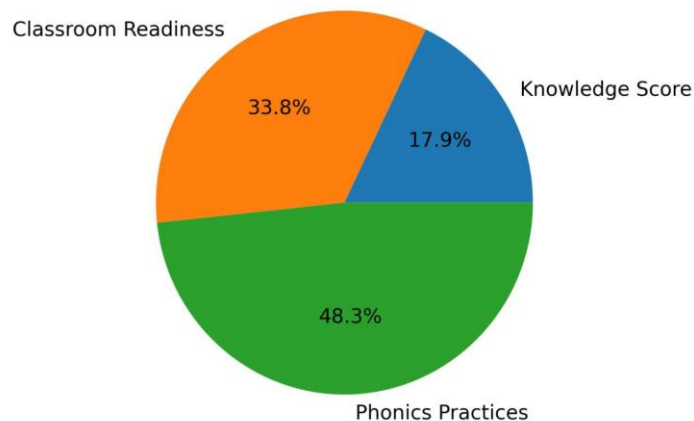


From the analysis, the calculated F values for knowledge and readiness in the classroom tests are lesser than the critical value (2.438), which means that there is no significant difference in terms of major subjects.

On the other hand, the calculated F value for phonics practices and instruction test is higher than the critical value (3.113), which means there is a significant difference among students of different majors in phonics instructional practices.

Figure 4.9.4

Distribution of F-values



As indicated from the table above, the percentages for Phonics Practices and Classroom Readiness account for the highest shares of F-values of 48.3% and 33.8%, respectively, while

those of Knowledge Scores make up only 17.9%. This indicates that the application of phonics practices is the dominant factor in this case.

3. Correlation Analysis

The Pearson product–moment correlation coefficient was used to determine the relationship between:

- Knowledge of phonics-based instruction
- Classroom readiness to implement phonics instruction
- Phonics instructional practices of student teachers

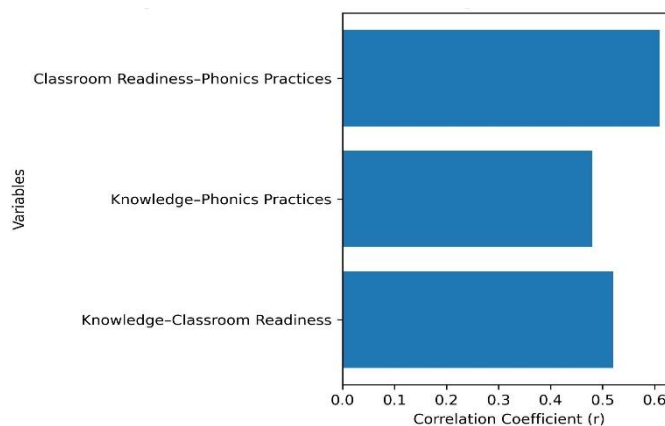
Table 4.9.3

Correlation Matrix

Variable	Knowledge	Classroom Readiness	Phonics Practices
Knowledge	1.00	0.52	0.48
Classroom Readiness	0.52	1.00	0.61
Phonics Practices	0.48	0.61	1.00

Figure 4.9.5

A bar graph of Correlation Analysis Results



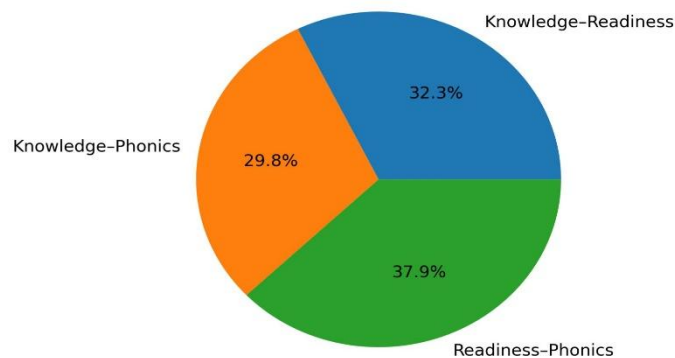
Based on the results of the correlation test, it is observed that there exists a positive association between knowledge, classroom readiness, and phonics instruction of student teachers.

- There exists a moderate positive correlation between knowledge and classroom readiness ($r = 0.52$).
- Likewise, there is also a moderate positive correlation between knowledge and phonics instruction ($r = 0.48$).
- However, a higher degree of positive correlation was found between classroom readiness and phonics instruction ($r = 0.61$).

This indicates that student teachers with higher knowledge of phonics tend to demonstrate better classroom readiness and phonics instructional practices.

Figure 4.9.6

Proportion of Correlation Strength Among Variables



According to the above figure, Readiness-Phonics has the highest proportion of correlation of 37.9%, while Knowledge-Readiness is next with a percentage of 32.3%, and Knowledge-Phonics comes third with 29.8%.

4.10 Testing of Hypotheses

To find out whether there are any statistical differences between the scores of the students in terms of their knowledge, classroom readiness, and phonics practice, the hypotheses stated earlier were tested through ANOVA and t-test. The findings of the hypothesis test are shown below.

1. Hypothesis Related to Major Subject

Null Hypothesis

There is no significant difference in the knowledge scores, classroom readiness scores, and phonics practices scores of student teachers according to their main subject area.

According to the ANOVA analysis, it is seen that:

- The obtained F-value (knowledge scores: 1.153) is smaller than the critical value (2.438), which implies that there is no significant difference in knowledge scores concerning their main subject areas.
- The obtained F-value (classroom readiness scores: 2.177) is also smaller than the critical value (2.438). This means that there is no significant difference in classroom readiness scores in relation to their main subject areas.
- However, the obtained F-value (phonics practices and instruction: 3.113) is larger than the critical value (2.438). This suggests that there is a significant difference in phonics practices scores according to their main subject areas.

Therefore, null hypothesis is rejected in the case of phonics practices and instruction scores while it is accepted otherwise.

2. Hypothesis Related to Type of School

Null Hypothesis

There is no significant difference between the knowledge score, classroom readiness score, and phonics practice score of the student teachers in terms of the type of school studied.

The t-test shows that:

- Knowledge scores have a calculated t-value of 0.724, which is less than the critical value of 1.977, showing no significant difference.
- Classroom readiness scores have a calculated t-value of 1.512, which is less than the critical value of 1.977, showing no significant difference.
- Phonics practices scores have a calculated t-value of 1.079, which is less than the critical value of 1.977, showing no significant difference.

Therefore, the null hypothesis is accepted, implying that the type of school studied does not have a significant impact on the knowledge, classroom readiness, and phonics practice scores of the student teachers.

3. Hypothesis Related to Medium of Instruction

Null Hypothesis

There is no significant difference among the scores of student teachers with regard to knowledge, classroom readiness, and phonics practices according to their mediums of instruction.

According to the results of the t-test:

- Calculated t-value for knowledge scores = 1.783 < Critical t-value = 1.977 (no significant difference)
- Calculated t-value for classroom readiness scores = 1.183 < Critical t-value = 1.977 (no significant difference)
- Calculated t-value for phonics practices scores = 1.217 < Critical t-value = 1.977 (no significant difference)

Thus, the null hypothesis holds good; therefore, medium of instruction does not make any significant impact on knowledge, classroom readiness, and phonics practice scores of student teachers.

4. Hypothesis Related to Locality

Null Hypothesis

There is no significant difference in the scores obtained by student teachers with respect to knowledge, classroom readiness and phonics practices in relation to their location.

Based on the result of the t-test,

- For knowledge scores, the computed t-value is lower than the tabulated t-value (0.999 < 1.977) thus there is no significant difference.
- For classroom readiness score, the computed t-value is lower than the tabulated t-value (0.173 < 1.977) hence there is no significant difference.
- For phonics practice scores, the computed t-value is lower than the tabulated t-value (0.120 < 1.977) meaning there is no significant difference.

Therefore, the null hypothesis is accepted, implying there is no significance between the location of student teachers and their scores.

4.11 Conclusion

This chapter contains the data analysis and interpretation of data collected among the student teachers for the current study. The data was analysed employing suitable statistical

analysis including percentages, means, standard deviations, t-test and Analysis of Variance (ANOVA). Results obtained were tabulated and interpreted in line with the objectives of the study.

Firstly, the demographic profile of the respondents was analysed by employing percentages and frequency distribution to know more about the respondents' backgrounds which included their majors, ages, gender, year of study, level of study, type of institutions attended, type of schools, medium of instruction, locality, parents' occupations, and mother tongue.

Secondly, knowledge score of the student teachers with respect to the use of phonics-based instruction was analysed based on several variables namely majors, type of school, medium of instruction, and locality. In a similar manner, classroom readiness scores of the student teachers in implementing the use of phonics-based instruction were analysed. Phonics practices and instructions scores were also analysed to determine the level to which the student teachers demonstrated their knowledge with respect to the application of the phonics-based instruction.

Thus, findings indicate that the majority of the differences in knowledge and classroom readiness did not have statistically significant results based on the chosen variables. However, a significant result was found regarding the phonics instruction scores based on the major of the student teachers. These are the major results that were obtained from the analyses done.

This shows that there was clear insight into the knowledge, classroom readiness, and phonics instruction practices of the student teachers concerning phonics-based instruction. The next chapter discusses the results, conclusions, and recommendations.

**SUMMARY, FINDINGS
AND CONCLUSION**

CHAPTER-5

SUMMARY, FINDINGS AND CONCLUSION

5.1 Introduction

An overview of the research conducted along with the major results obtained during the analysis and interpretation of data was discussed in this chapter. The chapter also includes recommendations that can be made from the findings, further studies that should be conducted, and conclusions drawn about the study.

The current study is entitled “A Study on Student Teachers’ Perception and Understanding of Phonics-Based Instruction”. This study was conducted to assess the level of knowledge and preparedness of student teachers in terms of phonics-based instruction. There are many teaching strategies in the field of early literacy and phonics-based instruction is considered one of the most effective strategies. As teachers are vital for the process of literacy learning and development, it is very important to make sure that student teachers have enough knowledge about it. Teacher education programs help teachers gain all the necessary knowledge about effective teaching in order to use in their classrooms later. Hence, assessing the perception and readiness of student teachers in relation to phonics-based instruction is a vital step for teacher education programs.

The present research utilized the descriptive survey method in order to determine how student teachers perceive and comprehend phonics-based instruction. Specifically, an instrument in the form of questionnaire containing 60 items served as the main data gathering tool in this study. This questionnaire was constructed in order to determine the respondents’ knowledge about phonics, readiness in the classroom, conceptual understanding, and readiness to implement phonics. The data gathered were analysed by means of employing the proper statistical tools such as percentage, mean and standard deviation, t-test, ANOVA, and correlation analysis. These statistical methods aided in determining useful trends from the data provided by the respondents.

The outcomes of the data analysis contributed greatly in gaining insights regarding the level of knowledge and preparedness among student teachers about phonics.

5.2 Summary of the Study

The study was therefore carried out to investigate how students' teachers perceive and understand phonics-based instruction and their ability to use phonics teaching strategies. Phonics-based instruction is very important since it helps in the early development of reading skills by connecting letters with their sounds. It is through phonics-based instruction that a person is able to decode words, pronounce and read fluently.

Over the past few years, phonics-based instruction has assumed greater significance in language teaching. It is therefore crucial that student teachers should be adequately equipped for such a task. They should be taught how to conduct phonics-based instructions.

The main objectives of the study are outlined below:

- To assess the level of knowledge of student teachers regarding phonics-based instruction.
- To assess the level of classroom readiness of student teachers for implementing phonics-based instruction.
- To examine student teachers' understanding of key concepts related to phonics-based instruction.
- To identify the extent of preparedness of student teachers to implement phonics-based literacy instruction in classroom situations.

To accomplish the stated goals, a well-crafted questionnaire consisting of 60 questions addressing different facets of phonics knowledge and teaching readiness was designed and distributed to the selected group of student teachers.

Data were subjected to meticulous scrutiny through the application of statistical techniques, including percentage analysis, mean and standard deviation, t-test, ANOVA, and correlation analysis. Using such statistics made it possible for the investigator to find differences between groups and uncover any trends within student teachers' answers.

The findings of statistical analysis gave useful information concerning student teachers' knowledge, attitude, and readiness related to phonics-based instruction. From data interpretation, a number of significant findings were drawn and reported in the next part.

5.3 Major Findings of the Study

The key findings of the current study are stated with reference to the objectives of the research. These findings have been made based on the analysis and interpretation of the data obtained from student teachers using the structured questionnaire. The findings will give an insight into the extent of knowledge, classroom readiness, conceptual understanding, and preparedness of the student teachers in implementing phonics-based instruction.

Findings Related to Knowledge of Phonics-Based Instruction

Through an analysis of the data collected, it is established that student teachers have a fairly high knowledge base when it comes to phonics-based teaching methodologies. A majority of the students interviewed were aware of the basics of phonics, including letter–sound association, phonemic awareness, blending, and segmentation. The basics mentioned are key parts of phonics-based learning and help learners decode words through various techniques.

Further analysis reveals that most of the student teachers understand the significance of phonics learning in the process of language acquisition, especially in terms of acquiring literacy. Students were cognizant of the fact that phonics enable the recognition of patterns within sounds and help learners understand unknown words as they read.

Additionally, it was realized that some respondents understand the importance of phonics-based teaching methods in enhancing the ability of learners to pronounce words, spell accurately, and read effectively. But then, the results also highlighted that some student teachers lack adequate knowledge regarding systematic phonics teaching and phonics teaching methods. Although they understand the fundamental aspects of phonics teaching, they might be unaware of the structured phonics program and phonics teaching sequence. This clearly suggests that teacher training programs should focus more on providing comprehensive teaching of phonics teaching techniques.

In conclusion, the above discussion demonstrates that even though student teachers know the basics of phonics teachings, there is still a requirement for further training and experience in the field.

Findings Related to Classroom Readiness

As indicated by the study findings, student teachers show a positive degree of classroom readiness to conduct phonic-based instruction. A number of participants were enthusiastic

about the application of phonics during reading sessions in class. Such a high level of enthusiasm shows that student teachers understand the need for applying phonics to foster literacy among the learners.

The second major finding was that student teachers are open to conducting various phonics activities to help learners develop reading skills. The identified activities included conducting sound drills, conducting blending, word building, and segmenting phonemes as some of the strategies that may be applied successfully.

Student teachers are aware of the need for using instructional materials to teach phonics to learners. Instructional materials such as flashcards, phonics charts, picture cards, and word cards have been mentioned as useful materials when teaching phonic activities.

Even with this good attitude towards phonics lesson delivery, the results indicate that some of the student teachers do not feel confident in delivering phonics lessons alone. This might be the case because these students do not have enough experience teaching phonics while studying in teacher education institutions. Therefore, extra assistance might be necessary in order to teach student teachers how to conduct phonics lessons in real-life situations.

This calls for the need to ensure more practical experience for these student teachers by creating platforms where the students can practice how to conduct these phonics lessons.

Findings Related to Understanding of Phonics Concepts

According to the analysis of the collected data, student teachers appear to have conceptual knowledge about the nature and application of phonics to foster students' literacy abilities. Student teachers seem to be aware of how phonics contributes to students' understanding of how sounds relate to specific letters and patterns within words.

At the same time, it was found that student teachers acknowledge the importance of using phonics instruction to develop the competence of decoding. Decoding skills allow learners to break words into separate sound units, thus making it easier to learn how to pronounce new words. Decoding appears to be one of the most crucial skills contributing to successful reading practices and the formation of fluent readers.

In addition, respondent students realize the importance of phonemic awareness in the process of early reading instruction. Phonemic awareness is a skill that allows children to

understand how to distinguish different sounds used in spoken language. It seems to serve as a prerequisite for teaching phonics to young children.

Nevertheless, there were some misunderstandings in regards to the use of phonics strategies in multilingual classrooms that were discovered by this research as well. For example, some people do not understand how one may apply phonics methods to students speaking various languages.

Thus, the teacher education courses should give more attention to phonics strategies in order to train their students properly. The discussed issue would help the teachers get a better knowledge in the field.

Findings Related to Preparedness for Implementation

From the results of the study, it is clear that the participants are moderately ready to adopt the method of phonics instruction in their classrooms. The participants have shown readiness to apply various strategies of phonics instruction in their teaching careers in the future. Their readiness shows their positive attitude towards phonics instruction.

Furthermore, from the study results, it can be observed that the participants are ready to conduct various activities that are part of phonics instruction. These activities include phoneme blending, identification of phonemes, word construction, pronunciation, and recognition of sounds among other activities.

Moreover, it should be noted that the participants have shown readiness to undertake professional development in phonics instruction. Many participants showed their willingness to join various training programs on phonics instruction through seminars and workshops.

While there is evidence of enthusiasm and readiness among the participants to use phonics teaching techniques, some of them showed that they need more training workshops and practice sessions in applying the teaching strategies in class. This implies that it is important for teacher education programmes to consider placing more weight on practical training in phonics.

In general, the results indicate the need for more emphasis on phonics training in teacher education programs.

5.4 Recommendations

The following recommendations for improving the preparation of student teachers in phonics-based instruction have been identified on the basis of the research findings.

1. Inclusion of Phonics Training in Teacher Education Curriculum

Incorporation of formal phonics instruction is essential in teacher education curricula. This includes teaching student teachers' important concepts such as phonemic awareness, letter-sound associations, blending, segmentation, and decoding techniques that will enable them to deliver effective phonics instruction in the classroom.

2. Emphasis on Practical Training

More practical experience through activities such as micro-teaching, demonstration classes, peer teaching, and supervised teaching practices should be incorporated into the teacher education programme to boost the confidence and competence of student teachers.

3. Organization of Workshops and Training Programmes

Conducting workshops and training programs on phonics-based literacy instruction is necessary to increase awareness among student teachers about phonics instruction.

4. Provision of Instructional Materials

Teacher educators are supposed to make sure that there are enough instructional materials such as phonics charts, flashcards, sound cards, and other teaching materials which will help conduct an efficient phonics teaching in classes.

5. Continuous Professional Development

Educational institutions should promote continuing professional development courses among not only students but also practising teachers so that the latter are well acquainted with the new approaches to teaching phonics.

6. Assistance of teacher educators

Teacher educators should guide the trainee teachers on how to teach phonics effectively and provide feedback concerning this during the training process.

7. Integration of Phonics in Early Language Curriculum

It is important for educational authorities to see to it that phonics teaching is successfully incorporated into the early language syllabus.

5.5 Suggestions for further Research

The current study explored student teachers' perception and comprehension of phonics-based teaching and their preparedness to employ phonics teaching techniques in class. While the study contributes valuable information to the literature, it also opens up avenues for further research.

1. Research Using Larger Sample Sizes

Further research may be done using larger sample sizes in various districts or states to provide more complete findings and enable generalisation.

2. Comparative Studies

Comparative research may be performed comparing student teachers with in-service teachers on their comprehension and use of phonics teaching methods.

3. Experimental Research on Phonics Training

Experimental research may be done investigating the impact of phonics training on teacher instructional abilities and classroom application.

4. Impact of Phonics Instruction on Students

Another area that could be explored through further research is the effect of phonics-based teaching on students' reading skills, pronunciation, and other aspects of literacy.

5. Qualitative Research on Teachers' Experiences

It would also be possible to conduct qualitative research to study the experiences of teachers in introducing and implementing phonics-based learning in their classrooms.

6. Teaching Phonics in Multilingual Classes

Phonics can also be examined in the context of teaching in multilingual classes through further research.

7. Role of Technology in Phonics Teaching

Research might also be conducted to examine the role of technology in facilitating phonics teaching and learning.

5.6 Conclusion

The present study focused on the perception and understanding of phonics instruction among student teachers as well as their preparedness to implement phonics teaching techniques in the classroom setting. Phonics instruction is crucial in the development of literacy skills because it assists learners in comprehending the connection between letters and sounds, which will enable them to decipher words. According to the results of the study, student teachers have adequate knowledge and a relatively positive attitude towards phonics instruction. Student teachers were aware of some key phonics principles like phonemic awareness, letter-sound relationships, blending, and segmentation. In addition, the students realized that phonics can be used to enhance learners' reading capabilities.

In addition, the findings revealed that student teachers are interested in using the phonics instructional approach in class. Nevertheless, the research revealed that there is a need for more training and practice to build confidence and competence in teaching. Educator training schools must prepare educators through extensive phonics training, practical teaching experience, and sufficient instructional resources.

Conclusively, the enhancement of phonics instruction in educator training programs would be beneficial for educators to develop early literacy skills in learners.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Alshaboul, Y. M., & Almahasneh, R. (2019). EFL teachers' phonological awareness beliefs and practices: Help or prevent EFL children developing reading. *University of the Future: Re-Imagining Research and Higher Education*.
- Asbar, M. P. (2025). Teaching decoding and phonics skills. In *Teaching reading: Strategies for developing literacy skills* (p. 51).
- Black, M. P. (2018). *Applying design-based research to measure the knowledge of phonics among preservice teachers within the teacher preparation program of a large urban university* (Doctoral dissertation, University of Houston).
- Campbell, S. (2018). Teaching phonics without teaching phonics: Early childhood teachers' reported beliefs and practices. *Journal of Early Childhood Literacy*.
- Campbell, S. (2019). *Putting the jigsaw together: Reading and teaching of phonics in the early years*.
- Chen, M. J., Wong, W. L., Yin, G. J., Soo, R. S., & Dong, Y. L. (2024). Effectiveness of a phonics instructional guide on the PCK of teaching phonics among pre-service EFL teachers. *World Journal of English Language, 14*(2).
- Chen, M. J., Wong, W. L., & Mihat, W. (2025). Developing phonics instruction competencies in Chinese EFL teachers: A needs-based approach. *SAGE Open, 15*(4).
- Daniel, J., Misquitta, R., & Nelson, S. (2025). Pre-service teachers' knowledge and preparedness to teach foundational reading skills: A comparative study between India and England.
- Debkumar. (2023, July 29). Research design definition and characteristics of research design. *English EduTips*.
- Dilgard, C., Hodges, T. S., & Coleman, J. M. (2022). Phonics instruction in early literacy: Examining professional learning, instructional resources, and intervention intensity.
- Ehri, L. C. (2022). What teachers need to know and do to teach letter-sounds, phonemic awareness, word reading, and phonics. *The Reading Teacher*.
- Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, D. M. (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research, 71*(3), 393–447.
- Hikmat, M. (2016). The effectiveness of using phonics instruction and storybooks in English reading classes to improve student participation.
- International Literacy Association. (2018). *Explaining phonics instruction: An educator's guide* (Literacy leadership brief).
- Khair, N. S. M. M., Rafik-Galea, S., Yasin, F., Noor, M., & Armum, P. (2025). Enhancing preschoolers' reading fluency through shared reading with decodable texts: A quasi-experimental study. *International Journal of Education*.
- Kim, S. (2018). Developing a phonics program based on onset-rime approach for improving young learners' English word recognition and reading.

- Mkwakwe, D. P. (2012). The role of the educator in identifying learners with reading problems in the intermediate phase.
- Murthy, S. N., & Bhojanna, U. (2011). *Business research methods* (3rd ed.). Excel Books.
- Nadeem, F., & Shaheen, S. (2025). Phonics-based and sight-word approaches in early reading development: A conceptual review. *Journal of Applied Linguistics and TESOL (JALT)*, 8(4).
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. National Institute of Child Health and Human Development.
- Ndijuye, L. G., Basil, P. T., Ndibalema, P., Lawrent, G., Gabriel, P., & Mbepera, J. (2025). Teaching reading in early grades: The classroom practices for integrating phonics approach into whole-language learning. *Cogent Education*.
- Nicholson, T., & McIntosh, S. (2020). An exploration of the relationship between phonological and phonics knowledge, and self-efficacy for teaching. *Dyslexia*, 26(3), 286–304.
- Ovitigama, S. (2025). Alphabetical principle versus alphabetical code in early reading instruction. *International Journal of Education and Linguistics*.
- Price, S. M. (2015). *The teaching of explicit phonics effects on kindergarten reading readiness scores* (Doctoral dissertation, Liberty University).
- Ramos, A. (2019). Teacher perceptions regarding the influence of secondary phonics instruction on student reading.
- Rose, J. (2006). *Independent review of the teaching of early reading: Final report*. Department for Education and Skills.
- Shedrow, S., & Stoetzel, L. (2023). Making the transfer: Preservice teachers' technical and pedagogical knowledge of phonics instruction. *Teaching Education*.
- Singh, S. (2023, August 22). What is a problem statement in research? How to write it with examples.
- Siregar, D. Y., Khairani, K., & Lubis, Y. (2023). The influence of phonological awareness on early literacy development.
- Sukkrong, J., Chanphram, K., & Wiangin, N. (2026). The development of a phonics-based pronunciation innovation to enhance young learners' English pronunciation. *Academic Journal of Humanities and Social Sciences Burapha University*, 34(1), 148–161.
- Tandika, P., Ndibalema, P., Laurent, G., Mbepera, J., & Gabriel, P. (2024). Early grade teachers' implementation of phonics-based literacy instruction for reading skills development: Do teachers' professional experiences make a difference? *Teacher Education through Flexible Learning in Africa (TETFLE)*, 6, 38–68.
- Valladolid, G., & Estremera, M. (2026). Theoretical perspectives on phonics instruction: A systematic literature review in English as a Second Language (ESL). *EIKI Journal of Effective Teaching Methods*, 4(1).

- Vesay, J. P., & Gischlar, K. L. (2013). The Big 5: Teacher knowledge and skill acquisition in early literacy. *Reading Horizons*.
- Walkey. (2022). The impact of explicit phonics instruction on emergent literacy.
- Williams, C. (2025). Phonics and whole language: Working together to accomplish a common goal. *International Social Sciences and Education Journal*.
- Williams, J. S. (2012). *Teachers' perceptions and pedagogical content knowledge of phonological awareness, phonics, and dyslexia* (Doctoral dissertation, Walden University).
- Wold, C., Moon, A. L., Neville, A. L., & Houge, T. T. (2024). Comparing preservice and inservice teachers' perceptions and actual knowledge of phonics. *Journal of the American Academy of Special Education Professionals*.
- Zaman, M. (2022). *Phonics: The strategy of teaching reading and writing skills for children with dyslexia or dysgraphia*.

WEBSITES

<https://digitalcommons.liberty.edu>

<https://doi.org>

<https://english.edutips.com>

<https://eric.ed.gov>

<https://journals.sagepub.com>

<https://onlinelibrary.wiley.com>

<https://scholar.google.com>

<https://scholarworks.wmich.edu>

www.abebooks.com

www.researchgate.net

www.sciedupress.com

www.semanticscholar.org

www.tandfonline.com

APPENDICES

DATA COLLECTION TOOL- QUESTIONNAIRE

APPENDIX-A

PERSONAL INFORMATION OF THE STUDENT TEACHERS'

Name

Class

Major

Age

Gender

Name of the Institution studying

Year of Study

Level of Study

Type of Institution previously studied

Type of School previously studied (Higher Secondary)

Place

Medium

Locality

Father's Occupation

Mother's Occupation

Mother Tongue

APPENDIX-B

THE QUESTIONNAIRE ON STUDENT TEACHERS' KNOWLEDGE AND CLASSROOM READINESS IN IMPLEMENTING PHONICS- BASED INSTRUCTION

1. I have direct understanding of phonics-based instruction.
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
2. I can differentiate between phonemes, graphemes, and morphemes.
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
3. I am able to identify the key components of phonics instruction.
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
4. I have knowledge on the importance of phonemic awareness in phonics instruction.
 - Strongly disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly agree
5. I am comfortable using standard phonics teaching techniques.
 - Strongly disagree
 - Disagree
 - Neutral

- Agree
- Strongly agree

6. I comprehended how phonics instruction helps early literacy.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

7. I understand how phonics relates to spelling and vocabulary development.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

8. I can recognize and correct phonics-related reading difficulties.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

9. I feel competent to teach phonics to young learners.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

10. I knew to teach students on how to decode multi syllabic words.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

11. Phonics instruction is necessary for early literacy development.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

12. Phonics-based instruction is essential for struggling readers.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

13. Phonics plays a vital role in improving spelling skills.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

14. Phonics instruction fosters the reading comprehension.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

15. Phonics instruction is effective for English as a Second Language (ESL) learners.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

16. Phonics is more beneficial than memorization-based reading strategies.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree

17. Phonics instruction is needed even in digital learning environments.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

18. Phonics-based reading instruction is applicable for students of all backgrounds.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

19. Phonics instruction assists students become independent readers.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

20. Phonics instruction is vital for improving students' spelling skills.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

21. Teaching phonics supports students develop strong writing skills.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

22. I feel assured in implementing phonics-based teaching strategies.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

23. I am comfortable describing phonics concepts to students.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

24. I feel prepared to teach phonics to students with different learning needs.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

25. I can effectually demonstrate phonics sounds and patterns.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

26. I am very confident in integrating phonics with storytelling and reading activities.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

27. I can evaluate students' phonics skills accurately.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree

28. I am very confident in using phonics to support struggling readers.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

29. I confidently use technology to support phonics instruction.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

30. I am confident in controlling a classroom while teaching phonics.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

31. I aim to use phonics-based instruction in my future teaching practice.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

32. I can able to use phonics to improve students' pronunciation.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

33. I utilize phonics-based games and activities to enhance learning.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

34. I assure students practice phonics through hands-on activities.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

35. I strengthen phonics concepts through multisensory learning techniques.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

36. I motivate students to apply phonics skills in their writing.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

37. I regularly evaluate students' phonics progress.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

38. I encompass phonics drills into my classroom routine.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree

39. I apply real-life examples to help students understand phonics concepts.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

40. I motivate students to use phonics skills in their everyday reading.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

41. I can effectively evaluate students' phonics knowledge and progress.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

42. I have knowledge to use phonics assessments to guide instruction.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

43. Regular phonics assessments assist in tracking student progress accurately.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

44. Standardized phonics assessments impart an accurate measure of student learning.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

45. Informal assessments (e.g., observation) are more effective for phonics evaluation.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

46. Phonics assessments must focus on both accuracy and fluency.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

47. I impart timely feedback to students based on their phonics assessment results.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

48. Students must be assessed on their ability to apply phonics in real reading situations.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

49. I think self-assessment is an effective tool for phonics learning.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree

50. I use phonics assessment results to alter my teaching strategies.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

51. Phonics instruction is an appealing way to teach reading.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

52. I am exhilarated about incorporating phonics instruction into my teaching.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

53. I view phonics as a fundamental part of early literacy instruction.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

54. Phonics-based learning helps students in developing lifelong reading skills.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

55. I'll suggest phonics instruction to other educators.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

56. I am open to use new phonics teaching strategies in my lessons.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

57. I feel phonics instruction is beneficial for second-language learners.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

58. I think phonics instruction should be fun and engaging.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

59. I am disposed to experiment with new phonics teaching methods.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

60. I feel phonics instruction should evolve with new research and technology.

- Strongly disagree
- Disagree

- Neutral
- Agree
- Strongly agree



Avinashilingam Institute for Home Science and Higher Education for Women
Deemed-to-be-University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC
Coimbatore-641 043, Tamil Nadu, India
Institutional Human Ethics Committee (IHEC)

Date 4/3/2026

Chairman

Dr. Sudha Ramalingam

Director, Research and Innovation
Professor, Community Medicine
PSG Institute of Medical Sciences
& Research, Coimbatore

To

Anshiya A
24PED005
Department of Education
Avinashilingam Institute for Home Science and
Higher Education for Women, Coimbatore 641043

Member Secretary

Dr. Shubashini K. Sripathi
Professor of Chemistry
School of Physical Sciences and
Computational Sciences

Dear Ms Anshiya A

Ref: Your application IHEC 2026/EDN3
Student Teachers' Knowledge and Classroom Readiness in
Implementing Phonics-Based Instruction submitted for
approval of IHEC

Members

Thiru J.V. Raj (Legal Expert)
Dr.C.Madhan Mohan (Medical Officer)
Dr. S. Ganthimathi (Internal Expert)
Dr. K Sambath Rani (Internal Expert)
Dr. Vanithamani (Internal Expert)
Dr. S.Gayathridevi (Internal Expert)
Dr. Pa.Rajeswari (Internal Expert)
Dr. S.Srividya (Internal Expert)
Dr. M.Priya (Internal Expert)
Mrs. M.Priya (Lay Person)

The Institutional Human Ethics Committee of Avinashilingam Institute for Home Science and Higher Education for Women after careful scrutiny and review of your application, hereby grants approval to your application titled 'Student Teachers' Knowledge and Classroom Readiness in Implementing Phonics-Based Instruction'. The approval number for the same is IHEC 2026/EDN3/XMT
This certificate is issued for the study period specified in your application.

Best Wishes,


Dr. Shubashini K. Sripathi
Member Secretary

