CHAPTER 3
METHODOLOGY

3.1. INTRODUCTION

After studying many studies in the field of Reading Skills for young children, the researcher chose the following research methodology for the present study. This chapter describes the design of the experiment, population, sample, tools and techniques, and the procedures followed in data collection and analysis.

3.2 RESEARCH DESIGN

The researcher selected the experimental design for the intervention program developed to enhance the reading skills in English among the senior KG students. The experimental method provides a logical, systematic way to answer the question. "If this is done under carefully controlled conditions, what will happen?" (Best and Kahn, 2011). The researcher chose Quasi-Experimental Design for this purpose. Pretest-Posttest Nonequivalent Groups Design was suitable for the intervention program. As Best and Kahn (2011) suggest, the Pretest-Posttest non-equivalent groups design is used in the classroom experiments when experimental and control groups are such naturally assembled groups as intact classes.

To improve the strength of the study the researcher made the groups equivalent on the pre-test achievement in English. The design of the study can be presented as below.

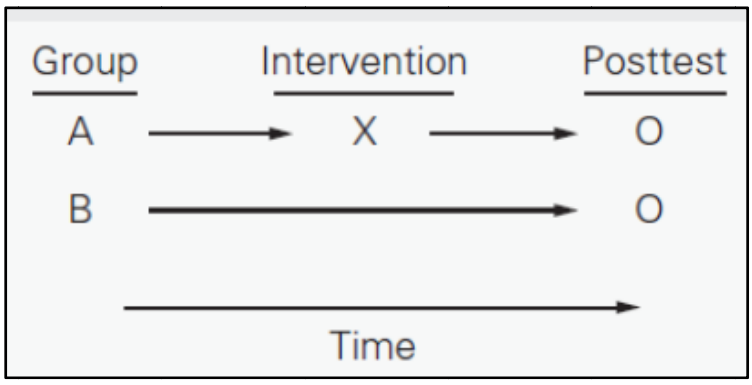


Figure 3.1 Framework of Pretest Posttest Nonequivalent Groups Design

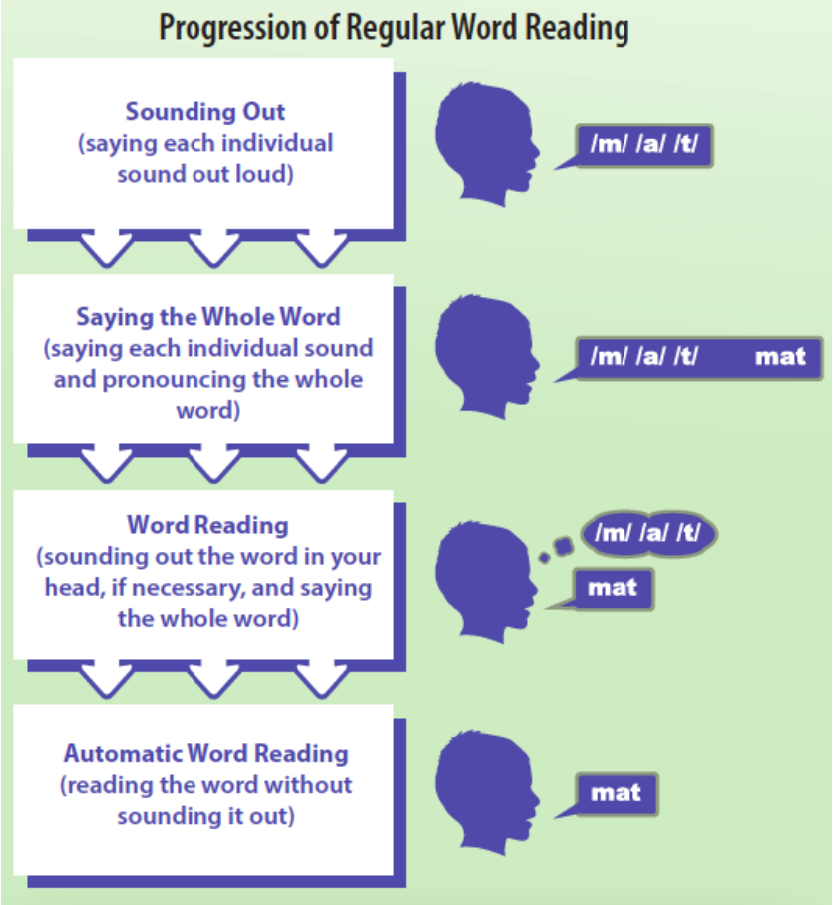
Figure 3.1 explains the framework of this research design. Group A represents the Experimental Group and Group B the Control Group. X stands for the intervention program. The researcher selected a class of senior kindergarten students for the experiment and the

students were divided into two groups – Experimental Group and Control Group. In the pre-test, the foundational early literacy skills of the English language were assessed through a standardized assessment tool, DIBELS Next. The scores measured for both the groups in the pre-test were used to make the groups equal. The intervention was implemented among the students of the experimental group and the control group was following the traditional learning methods used by teachers. Post-intervention, the early literacy skills were measured again among the experimental and control group.

3.3 EXPLANATION OF THE TERMS

- Phonological Awareness: It is the ability to manipulate the sounds in language. It is the ability to hear, identify and manipulate individual sounds, phonemes, in spoken words. It involves skills like rhyming, counting the number of words in a sentence spoken aloud, identifying the first sound in a word, and segmenting a word into its sounds.
- Phonemic Awareness: It is a part of phonological awareness. It is the ability to hear and manipulate individual phonemes. For example, the /k/ sound in the word 'cat'. Both phonological awareness and phonemic awareness focus on sound in words, they do not involve print (alphabet letters or words). These skills are practiced by only speaking and listening.
- Alphabet knowledge: Alphabet knowledge means the knowledge of individual letter names, sounds and shapes.
- Alphabetic Principle: Connecting letters with their sounds to read and write is called "Alphabetic principle". For example, a student who knows that the written letter "c" makes the /k/ sound is demonstrating the Alphabetic Principle. The goal of phonics is Alphabetic Principle, it has two parts:
    1. Alphabet understanding is knowing that words are made up of letters that represent the sounds of speech.
    2. Phonological recoding is knowing how to translate the letters in printed words into the sounds they make to read and pronounce the words accurately.

  The following chart explains how the alphabetic principle leads to word reading.



(Source- National Center on Improving Literacy, 2018)

Figure 3.2 Alphabetic principle leading to Word Reading

- Decoding Skills (Phoneme Blending): Decoding is a process of letter-sound correspondence for recognizing words. When a student can hear, identify, and manipulate individual sounds, phonemes, in spoken words and can combine the phonemes to form a word, it is known as blending. When a student can blend individual sounds to make up a word, that process is called decoding. For example, /c/ /a/ /t/ is cat. Decoding skills are very crucial to form words from their sounds.
- Encoding Skills (Phoneme Segmentation): Encoding is a process of breaking a word into separate sounds, phonemes. This is how you learn to spell a word phonetically. For example, there are four sounds in the word cream:/k/ /r/ /ea/ /m/. Encoding skills are very important to learn to spell.
- Phonics: Phonics is a process of teaching students to correlate an individual sound with its corresponding letter or letter group, basically matching the sounds of spoken English with individual letters or letter groups. For example, the sound k can be spelled as c, k,

ck or ch. Phonics builds upon a foundation of phonological awareness, especially phonemic awareness.

- Vocabulary: Vocabulary is a set of familiar words used and understood by a student to communicate in these four language skills- listening, speaking, reading or writing.
- Fluency:It is the capacity to read quickly, accurately, and expressively.
- Reading Comprehension: Reading Comprehension is the ability to process text, understand its meaning, and integrate with what the student already knows. It is the ultimate goal of learning to read.

3.4 POPULATION OF THE STUDY

The population for the research study comprised all the students of the English medium Senior KG in 36 Ahmedabad Municipal Corporation-run GSEB (Gujarat Secondary Education Board) of Ahmedabad city during the year 2019 -2020.

3.5 SAMPLE OF THE STUDY

The sample of the study was selected using purposive sampling method. The researcher selected Nagar Prathmik Shikshan Samiti Ahmedabad municipal Corporation-run Naranpura Public School, Sola English medium school. The due permission was taken to conduct data collection and for the implementation of the intervention for senior kindergarten students.

There were 47 students in the class of senior kindergarten. Students were divided into two groups – the Experimental Group (20 students) and the Control Group (20 students). A pre-test was administered on both the groups after obtaining permission from the District Primary Education Officer, Ahmedabad. Based on the pre-test scores of early literacy skills in the English language, the experimental and control group were made equivalent. Creswell (2012) describes this process as a process of identifying one or more characteristics which can influence the outcome and assigning individuals with that characteristic equally to the experimental and control group. Matching of the groups reduces the risk of selection bias. After matching the groups based on pre-test scores, the sample size was 20 in both experimental and control group. The researcher made sure that both the groups had no prior knowledge of any of the fluencies that were tested for.

3.6 PHASES OF THE STUDY

The present study was carried out in three phases from the development of an intervention to analysis.

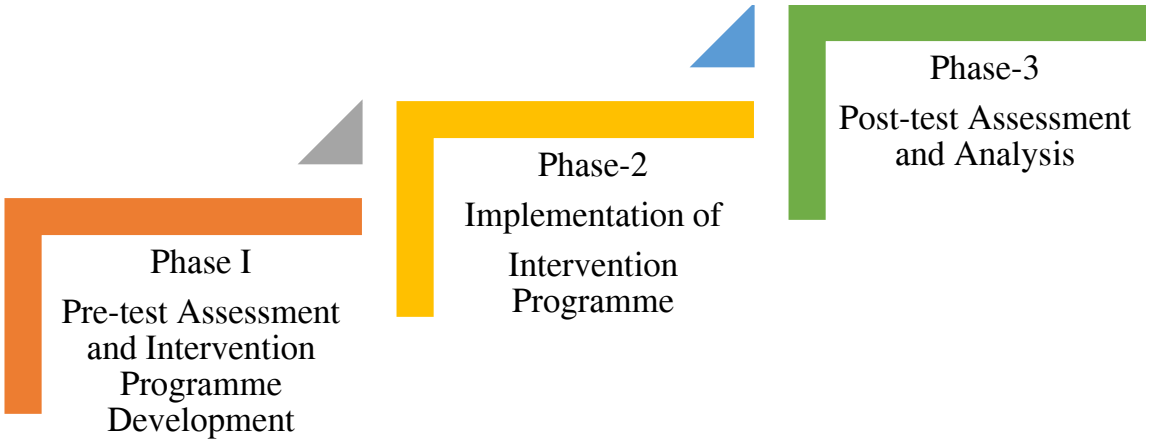


Figure 3.3 Phases of the Study

A brief description of all phases is defined as below,

Phase 1: Pre – Test Assessment and Intervention Programme Development

In this phase, the researcher developed the intervention programme for enhancing Reading Skills of senior KG students. After researching many programmes on Reading and Reading skills Enhancement, the researcher felt that for senior KG students, it would be important to enhance developmentally appropriate reading skills in phonological awareness, phonics, vocabulary, fluency, and comprehension. For this purpose, the design of the intervention was conceptualized. The testing of the skills would be in FSF (First Sound Fluency), LNF (Letter naming Fluency), PSF (Phoneme Segmentation Fluency), and NWF (Nonsense Word Fluency) according to students' appropriate age mentioned in the DIBELS Next tool, which is 4.5 to 5.5 years. So, with careful planning, the researcher charted out activities to develop these fluencies in a joyful manner, with the help of many audio-visual rhymes, songs, stories, exercises and innovative classroom teaching. The point was to make the young children interested in reading without a burden and involve them in it effortlessly.

The researcher personally carried out the pre-test comprising four fluencies according to the DIBELS Next for kindergarten, First Sound Fluency, Letter Naming Fluency, Phoneme segmentation Fluency, and Nonsense Word Fluency at the beginning of the intervention program in the first week of December 2019. The investigator prepared various activities based on the fluencies which needed to be enhanced for improving the children's reading skills.

Phase 2: Implementation of Intervention

The activities for enhancing the basic four fluencies for phonological awareness and other reading skills were prepared after the pre-test results. The children needed to have basic Alphabetic knowledge to start with. The intervention program began on December 2, 2019 and finished on March 17, 2020, lasing 60 days. The activities included recognizing both the alphabets, the sounds of alphabets, playing songs on the laptop to introduce the sounds of each alphabet, simple stories, songs and rhymes for about 45 minutes every session. The children participated with enthusiasm and looked forward eagerly to the sessions.

Phase 3: Post - Test Assessment

DIBELS Next measures are designed to be indicators of basic early literacy skills. Each measure is a quick indicator of how well a child is doing in learning a particular basic early literacy skill. Phonemic Awareness is measured through FSF (First Sound Fluency) and PSF (Phoneme Segmentation Fluency). Alphabetic Principle and Phonics are measured from NWF (Nonsense Word Fluency) which checks correct letter sounds and whole words read.

Four sheets comprising of four different fluencies were prepared. Children from the experimental group and control group were tested. Each fluency lasted a minute and the correct responses were underlined and wrong responses were slashed.

3.7 TOOLS FOR DATA COLLECTION

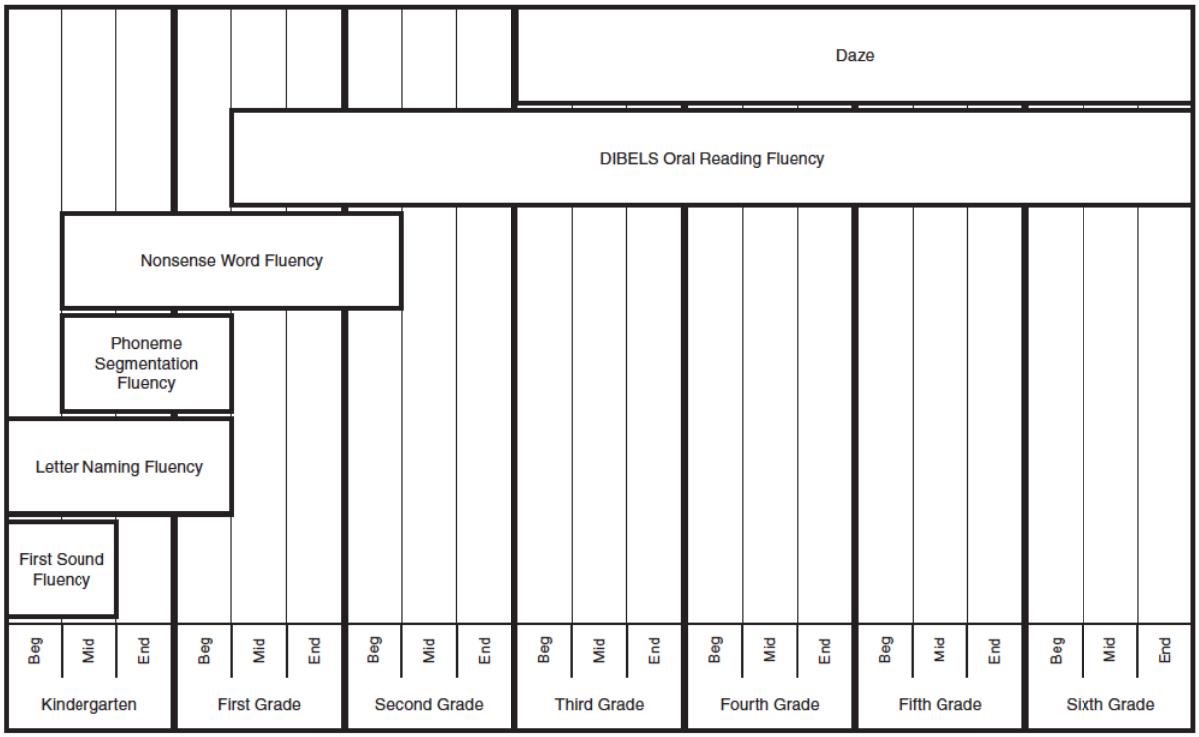
The researcher visited the five Nagar ShikshanPrathmikSamiti Ahmedabad Municipal Corporation-run English medium schools and proposed them to allow for data collection and the implementation of the programme for reading skills enhancement of senior KG students. One school agreed and allowed the researcher for data collection. The researcher visited a school, met school teachers of pre-primary classes and observed the teaching approaches used for senior KG students especially for English language teaching. Then, the researcher conducted a pre-test assessment by using the DIBELS Next tool to measure the existing

knowledge of senior KG students for English language reading. The same DIBELS Next tool would measure the post-test assessment after the implementing the intervention. Both pre-test and post-test assessments were conducted on worksheets and scoring was done based on the responses given by the senior KG students. The scores were analysed statistically to measure the effectiveness of the intervention.

3.7.1 DIBELS Next

DIBELS Next (Dynamic Indicators of Basic Early Literacy Skills) is a series of measurements that are used to evaluate early literacy and reading skills in children in kindergarten to sixth grade. The DIBELS is the significant tool to keep track of how well elementary students are learning to read. It's a series of methods and tests for evaluating the learning of a set of K-8 reading abilities such phonemic awareness, alphabetic principle, accuracy, fluency, and comprehension.

According to the DIBELS Next Manual, it can be used in two ways: Benchmarking and Progress Tracking. The DIBELS can be employed as a problem-solving, prevention-oriented approach for early reading acquisition (Good, Gruba, et al., 2001). One of the main reasons for using DIBELS Next is that it is one of the few tests that can assess fluency as well as phonological and alphabetic understanding (Rathvon, 2004). This tool assesses First Sound Fluency, Letter Naming Fluency, Phoneme Segmentation Fluency, and Nonsense Word Fluency for Kindergarten students which directly measures the Basic Early Literacy Skills like Phonemic Awareness, Alphabetic Principle and Basic Phonics.



(Source – DIBELS Assessment Manual)

Figure 3.4 DIBELS Next Benchmark Administration Timeline

Figure 3.4 explains the grade-wise distribution fluencies, which can be enhanced in a student and equip with good reading skills. For senior KG students First Sound Fluency (FSF), Letter naming Fluency (LNF), Phoneme Segmentation Fluency (PSF), and Nonsense Word Fluency (NWF) are the foundational early literacy indicators which DIBELS Next measures quickly and efficiently. (The DIBELS Next Manual, 2008)

The DIBELS Next assessments are designed to be quick fluency tests (one minute) that can be used to detect risk and track the development of early literacy and reading skills in kindergarten through eighth grade. The tool was created to assess skills that have been experimentally validated and are connected to general reading results. Each subtest has undergone extensive investigation and has been shown to be a reliable and relevant measure of early literacy progress. DIBELS data, when used as directed, can be used to assess individual student progress as well as offer grade-level feedback on validated instructional objectives.

Table 3.1 Alignment of DIBELS Next Measures with Basic Early Literacy Skills (DIBELS Next Manual)

	Basic Early Literacy Skills	DIBELS Indicators
1	Phonemic Awareness	First Sound Fluency (FSF)
		Phoneme Segmentation Fluency (PSF)
2	Alphabetic Principles & Basic Phonics	Nonsense Word Fluency (NWF)
		Correct Letter Sounds
		Whole Word Read
3	Advanced Phonics & Word Attack Skills	DIBELS Oral Reading Fluency (DORF)
		Accuracy
4	Accurate & Fluent Reading of Connected Text	DIBELS Oral Reading Fluency (DORF)
		Correct Word /Minute
		Accuracy
5	Reading Comprehension	Daze
		DIBELS Oral Reading Fluency (DORF)
		Correct Word /Minute
		Retell / Total / Quality of Response
6	Vocabulary & Language Skills	Word Use Fluency - Revised
		Available experimental measure from DIBELS Manual

(Source - DIBELS Next Manual)

As per the DIBELS Next Manual, the main four fluencies which will be assessed on kindergarten students are explained below along with their relationship with the reading skills.

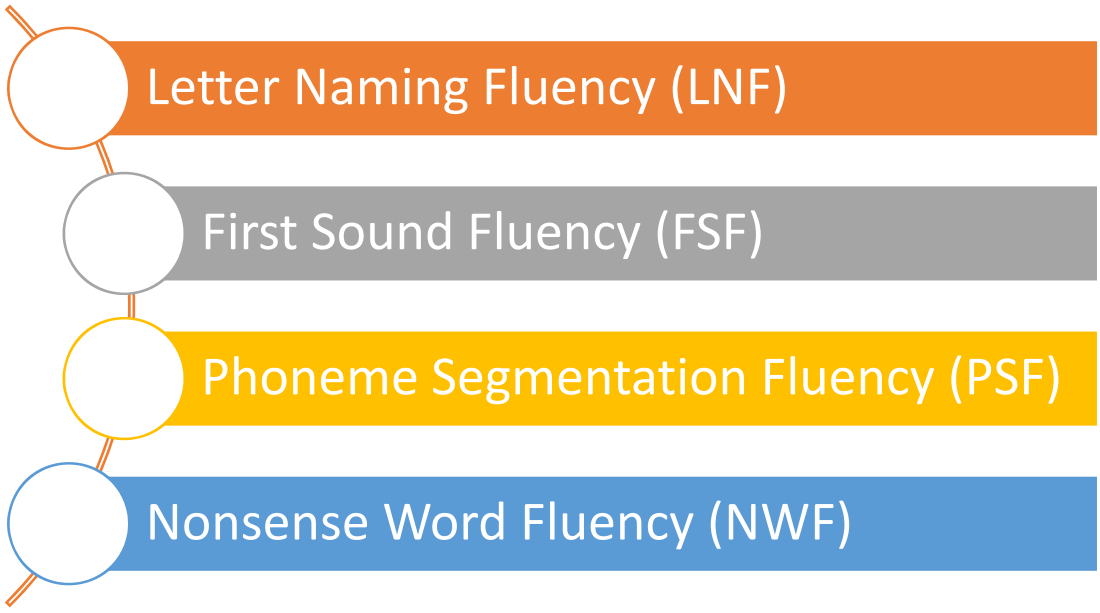


Figure 3.5 DIBELS Fluencies for Kindergarten

Letter Naming Fluency (LNF)

Letter Naming Fluency (LNF) is a quick and easy way to assess a student's ability to name letters. The LNF test measures a student's ability to recognise and pronounce individual letters. The assessor shows a sheet of upper- and lower-case letters arranged in random order and asks the student to name the letters using standardised instructions. Letter names that are read inaccurately or skipped are marked by the assessor. The final score is determined by how many correct letter names the student can say in one minute. The Letter Naming Formula (LNF) is used to assess students' automaticity in letter naming. The ability to name letters fluently is a strong and reliable predictor of eventual reading success (Adams, 1990). Because the goal of LNF is to test fluency rather than identify which letters a student knows or doesn't know, all letters appear in random sequence on the LNF materials. As such, it provides an added risk indicator for early school-age children. To read an alphabetic writing system such as English, students must be able to recognize letters, name the letters, and associate the letters with their corresponding sounds (Troia, 2004).

The five fundamental components of early literacy do not include letter naming. Most of the kindergarten students have very brief understanding of letter names. Many can sing the alphabet song and recite the letters' names in order. Many students may quickly distinguish the letter forms and print signals of their favourite retailers or cuisines since they are surrounded by environmental print. All of these encounters serve as a gateway to the printed word. The practical implication of learning letter names through music and rhythm is that teaching the visual representation for each letter follows easily and almost naturally. Recognizing environmental print provides children with the understanding that print has meaning. Knowing letter names is disputed in terms of understanding the alphabetic principle because knowing letter names is not a must for reading success. Despite this, knowledge of letter names in kindergarten is a significant and reliable predictor of subsequent reading success (Adams, 1990), and it has a long-term association with phonological awareness (Adams, 1990). (Kaminski & Good, 1996; Scarborough, 1998; Stahl & Murray, 1994; Wagner et al., 1994) (The DIBELS Next Manual, 2011).

First Sound Fluency (FSF)

First Sound Fluency (FSF) is a new DIBELS Next measure. The FSF is a quick way to assess a student's ability to recognise the first sounds of words. The capacity to separate the first sound of a word is a crucial phonemic awareness skill that is linked to reading acquisition and success (Yopp, 1988). Because it is easier to isolate and identify the first phoneme in a

word than it is to segment words or manipulate phonemes in words, the FSF is used as a test of developing phonemic awareness in kindergarten. The assessor uses standardised directions to say a series of words to the student one at a time and asks them to say the beginning sound in each word. The assessor circles the corresponding sound or set of sounds that the student says on the score page.Students get 2 points for speaking the first phoneme of a word (e.g., /s/ for street) and 1 point for saying the first consonant blend, consonant plus vowel, or consonant blend plus vowel (e.g., /st/, /str/, or /strea/ for street). If the student gives any of the correct answers for the word, the response is considered correct. The overall score is determined by the number of correct 1- and 2-point responses given in one minute by the student. Due to the use of differential scoring for student replies, young pupils might obtain partial credit for exhibiting basic phonemic awareness skills. Even if a student is unable to isolate the first phoneme, /s/, he or she will be given partial credit for supplying the first group of sounds in the word, demonstrating a growing comprehension of how words are built up of sounds. Despite the fact that partial credit is given, the goal is to be able to correctly speak the first phoneme of each word. (The DIBELS Next Manual, 2008).

Phoneme Segmentation Fluency (PSF)

DIBELS Phoneme Segmentation Fluency (PSF) Phoneme Segmentation Fluency is the next sign for Phonemic Awareness of Basic Early Literacy Skills. The Phoneme Segmentation Fluency (PSF) is a quick and easy way to assess the phonemic awareness of students. It evaluates a student's ability to break down a spoken phrase into its' constituent elements, or sound segments. The facilitator speaks a word and asks the student to say the sounds in the word using instructed guidance. Each correct sound segment of the word that the learner says is underlined by the assessor. Any separate, accurate part of the word that the student says is referred to as a correct sound segment. The overall score is the number of right sound segments said in one minute by the learner. If the examiner says fish and the student responds with /f/ /i/ /sh/, the student has completely and correctly segmented the word into its component sounds and the score is 3 correct sound segments. The score is two correct sound segments if the student states /f/ /ish/. Partial segmentation receives partial credit. While a student developing phonemic awareness may not yet be able to segment words into individual sounds, he or she may be able to segment words into parts. One point is awarded to a pupil who correctly pronounces the first sound of the word sun (/s /). A student receives 2 points for successfully segmenting all of the phonemes in the word (/s/ /u/ /n/), and 3 points for correctly segmenting the onset and rime (/s/ /un/).

Consonant blends contain two or more phonemes that must be produced individually in order for a learner to receive full credit. For example, a student who says /tr/ /a/ /p/ gets partial credit of 3 points, while a student who says /t/ /r/ /a/ /p/ gets full credit of 4 points. Partially allowing credit in scoring increases the sensitivity of the measure, thus making it possible to measure growth from partial to complete segmentation. Although partial credit is given, the preferred response is for students to completely segment words at the phoneme level by the end of kindergarten.

Nonsense Word Fluency (NWF)

Nonsense Word Fluency with Correct Letter Sounds and Whole Words Read are DIBELS indicators for Alphabetic Principle and Basic Phonics of Basic Early Literacy Skills.

NWF uses phonetically normal make-believe (nonsense or pseudo) words as test items. Students must use their knowledge of letter-sound correspondence and also how to blend sounds into whole words to successfully complete the NWF task. According to Rathvon, 2004 NWF is a good indicator of Alphabetic principle, since pseudo words do not have a lexical entry and thus it provides a relatively pure assessment of students' ability to apply grapheme- phoneme knowledge in decoding.

The student is asked to read randomly placed vowel-consonant and CVC words,(e.g. rit, cit, git, mot, vot, sot), and the assessor underlines each correct sound produced either in isolation or blended together.

Number of Correct Letter Sounds (CLS) and number of Whole Words Read(WWR) without sounding out in one minute are underlined by the assessor.

3.7.2 ADMINISTRATION OF DIBELS Next

DIBELS Next test for reading skills is a set of measures for assessing the acquisition of Basic Early Literacy Skills. The pre-test and the post-test measured the four fluencies, FSF, PSF, LNF and NWF suitable for the Senior Kindergarten students. Phonemic Awareness is measured through FSF (First Sound Fluency) and PSF (Phoneme Segmentation Fluency). Alphabetic Principle and Phonics are measured from NWF (Nonsense Word Fluency) which checks correct letter sounds and whole words read.

Four sheets comprising of four different fluencies were prepared. Children from the experimental group and control group were tested. Each fluency lasted a minute and the correct responses were underlined and wrong responses were slashed.

3.7.3 ACTIVITIES FOR READING ENHANCEMENT IN ENGLISH

Many varied activities were included for enhancing reading skills in English for Senior KG students in the intervention programme.

The senior KG students of Naranpura Public School, Sola did not have Alphabetic Knowledge of both the cases, upper and lower. Hence the researcher first imparted the Alphabetic knowledge to the students for about ten days before the intervention began.

In the intervention, the students were encouraged to recognize letters, form words, identify print and read words through play-based activities on the blackboard and in the researcher's computer. The magnetic board was used to entice them for letter recognition, and for the sound of the particular letter. The letter-sound correspondence of simple words was sounded out by the researcher speaking each sound of the letter slowly for the students to understand that words are made up of these sounds spoken together. These phonological awareness activities helped them understand the connection of sound to the alphabet and vice versa. Then segmenting and blending sounds were explained and how they make up words and sentences. The activities for separating first sound (initial), middle (medial) sound and the last (final) sound of a three letter words were carried out. The researcher spoke a word slowly, to enable students to identify the sounds in it, e.g. man. Then asked students to identify all three sounds, /m/, /a/, /n/; first, medial and last. When the students did, the researcher asked them to speak it fast, n thus showing how to blend sounds into a word. The researcher made colourful chits with the first letter of the students' names written on them and asked them to pick up the one containing their name letter.

The phonetic alphabetic song was daily played on the laptop, and just in a few days, students started singing along with it. Rhymes and songs were sung every day. Students were given worksheets containing both the cases alphabets with pictures for revision. For rhyming exercise, words like man-pan-can- fan, rug-bug-pug-mug where the first sound was different but last two same, were practised. Also, some rhymes on the laptop were played after the session. The researcher also made chits with their names and rhyming names with first sound

different and last two sound same, e.g., Hitesh-Ritesh. The students once they learnt rhyming and their name spelling, were able to find matching rhyming name.

Every day stories were told at the end of the 45-minute session. The students looked forward to that time eagerly. The Thirsty Crow was the most favourite story, the students gathered around the researcher to see the animated story on the laptop. Also, the story was visualised with a finger puppet of a crow, a pot of water and pebbles. The children were thrilled to see it and supplied many words like here and there, pebbles, one-by-one.

3.7.4 COMPONENTS OF ACTIVITIES FOR ENHANCEMENT OF READING SKILLS

Learning to read is a combination of many skills including letter recognition, decoding skills, phonics, phonemic / phonological awareness, building vocabulary, comprehending the meaning of words and memorizing sight words. Hence the researcher employed many activities simultaneously for the enhancement of the reading skills in the intervention programme.

Table 3.2 List of Activities for Enhancement of Reading Skills

No	Component	Activities
1	Alphabet Knowledge	Upper – Lower case alphabet on the blackboard / magnetic board, songs on Alphabet on the laptop, reading from books, Charts on walls of the classroom about alphabet, fruits, birds, vehicles, etc.

2	Phonological awareness	Phonetic Sounds of letters of the Alphabet, First Sound, Medial Sound, last sound of three letter words, Phoneme Segmentation of words, Blending of letters. Rhyming games like "Simon Says, touch the body part that rhymes with 'land'" (each student would touch her hand.) The researcher spoke a word slowly, to enable students to identify the sounds in it, e.g. man. Then asked students to identify all three sounds, /m/, /a/, /n/; first, medial and last. When the students did, the researcher asked them to speak it fast, n thus showing how to blend sounds into a word.], songs and poems that emphasize rhyming or manipulation of sound were sung.
3	Phonemic awareness	Games like "I Spy", where the researcher would say, "I spy something that begins with the sound /b/." Students would look around the classroom for an item that begins with that sound. Similar exercise with pictures or small objects. A group of picture cards that begin with /t/, like 'tub' and /d/, like 'dog'. Then ask students to sort these pictures by their beginning sounds.
4	Phonics	Soft and hard sounds of the letters, Diagraphs, Diphthongs, blended letter sounds, long vowels, short vowels
5	Fluency	Repeated stories and words drill
6	Comprehension	Stories, Songs with action
7	Rhymes	Singing and listening to rhymes on the laptop to make children understand the relationship between print and speech/sound

3.7.5 IMPLEMENTATION OF THE INTERVENTION PROGRAMME

The researcher carried out the intervention on the experimental group of 20 students of Senior Kindergarten of Naranpura Public School. The intervention was continued for 60 days, from December 1, 2019 to March 17, 2020. The programme was for about 45 minutes per working day.

3. 8 DATA COLLECTION

The investigator went to the Nagar Prathmik Shikshan Samiti AMC School Board Office and met the District Primary Education Officer, and obtained permission to conduct the intervention programme in a municipal-run English medium school. There were 36 such schools and the researcher randomly selected five out of them and approached them to explain the reading skills enhancement programme. Out of these five schools, one agreed to carry out the intervention, and it was taken as a sample for the study. The data was collected personally by the researcher from December 2019 to March 2020. DIBELS Next was administered in the pretest and posttest on the students of both control and experimental groups.

The tool checked age-appropriate four fluencies-FSF (First Sound Fluency), LNF (Letter Naming Fluency), PSF (Phoneme Segmentation Fluency), and NWF (Nonsense Word Fluency) related to reading skills, suitable for the senior KG students of the school in the pre-test. After the implementation of the programme for 60 days, post-test was administered on both the groups to know the effectiveness of the intervention.

After the Diwali break in November 2019, the researcher personally administered the pre-test on the on the senior KG students of Naranpura Public School, Sola. The administration of the pre-test was done on both, experimental and control group. The investigator explained the test prior to its administration.

After the implementation of the intervention, the investigator carried out the post-test on both control and experimental group in March 2020. The same DIBELS Next tool was used to check the four fluencies-FSF (First Sound Fluency), LNF (Letter Naming Fluency), PSF (Phoneme Segmentation Fluency), and NWF (Nonsense Word Fluency) related to reading skills.

3.9 STATISTICAL ANALYSIS

The responses given by pre-schoolers were administered on worksheets and scoring was done based on the standardised scoring system of the DIBELS Next tool. The scores pre-test and post-test assessments of both Experimental and Control groups were entered into Microsoft Excel document. The data were coded and imported into SPSS software for further data analysis. As the sampling was done purposively, non-parametric statistics was used for data analysis. As the research design was quasi experimental in nature, non-parametric equivalent of t test, that is Mann-Whitney U-test was calculated on the post test scores of the control group and experiment group through SPSS 24.0

3.10 DISCUSSION

In most kindergarten reading programmes, activities for improving phonemic awareness are included. However, a review of the programmes reveals significant variations in the number and types of phonological awareness skills to be taught, the extent to which the programme focuses on the phonological awareness skills most closely linked to early reading acquisition, the pace of instruction, and the amount of instructional design and scaffolding of critical skills for at-risk learners (e.g., explicit instruction, systematic review, integration with other key early literacy skills). (Smith, Simmons, Gleason, Kame'enui et al., 2001; Simmons et al., 2000). The students of the Naranpura Public School were not familiar with the alphabet, hence a few developmentally appropriate activities according to their level were chosen by the researcher, for alphabet knowledge along with reading skills enhancement.

For example, the National Reading Panel (NRP, 2000) report indicated that teaching a few phonological awareness skills that are highly correlated to reading is preferable to teaching many skills. In addition, the NRP, 2000 report indicated that blending and segmenting instruction had a greater effect on reading development than teaching multiple skills. Moreover, the NRP concluded that the effects of phonemic awareness instruction were greater when the connection between phonological awareness and the sounds of letters was made explicit and integrated. Consequently, teachers need to check core beginning reading programmes and supplemental materials at the kindergarten level to evaluate whether sufficient focus is placed on phoneme blending and segmenting and whether there is explicit integration between phonemic awareness instruction and letter-sounds. Apparently if many skills are taught with equal emphasis, the curriculum is unlikely to be optimally effective. Even teachers who use supplemental programems whose efficacy has been established by

empirical research, such as Ladders to Literacy and Phonemic Awareness in Young Children, may need to modify these highly-respected programmes to provide intensive intervention for students who need substantial support. When considering the number of phonological awareness skills to teach children with intensive instructional needs, first sound recognition was considered a pre-requisite step for segmentation and was the focus of effective preschool and kindergarten intervention studies (Byrne & Fielding-Barnsley, 1989).