

Unlocking Power of Phonics for Literacy: Revolutionizing Reading Literacy Skills Development through Phonics Technique in Non-Formal Basic Education Schools

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Abstract

This study was conducted to find out the effects phonic technique on students' literacy skills (reading skills of English language) at primary level. Population of study comprised on all students at Non-Formal Basic Education Schools. By using cluster sampling technique, the researcher selected four Non formal basic education schools of village Nara (Attock). Total number of the students involved in the experiment was 32. Sample students were distributed in two equal classes by pairing on the base of equal marks and mean score. Both classes were labelled as A and B. Class A, and B was randomly assigned to either experimental or control group. The pretest posttest control group design, that is, true experimental pre-test post-test design was used. For the purpose of getting result a test was developed. Its items were selected after its validation from five experts. The reliability of test items was assessed through pilot study indicating .84* alpha reliability coefficient. In the test the researcher assessed four reading skills including phonemic awareness, vocabulary, fluency, and comprehension. The experimental group was taught using phonics and control group was taught using traditional techniques (read aloud and re-reading). Experiment was of one-month duration and 26 lesson plans were developed. Time duration for each lesson plan was 40 minutes. Results were analyzed through t-test. Results showed that phonic technique had significant effects on students' reading skills as compared to traditional techniques. So, it is recommended that English teachers may be trained and encouraged for using phonic technique and picture support technique in teaching English reading.

Keywords: *Reading Literacy, Phonemic Awareness, Vocabulary, Fluency, Comprehension, Phonics Technique*

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Introduction

Language is necessary for human being. Language means a group of words that are adjusted in a sentence, but every word has a different specification and meaning. We get some meaning when these words are combined in a specific way to present a very well-organized sequence (Noushad, 2015). The relationship between letters and their sounds is called phonics. Phonics is very essential part of speaking any language. "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)". It is a structured and planned program which helps to enhance decoding and spelling abilities of the learners. Phonics are usually studied at the early stages of learning to help learners in reading and writing words.

Reading is a basic capability for any language-related program. To make students capable of reading, it is essential that they understand phonics and learn to pronounce text correctly (Wawire & Zuilkowski, 2020; Mokobe et al., 2025). Vocabulary is the collection of words which is used by the learners to communicate in a language. Vocabulary is the backbone of the literacy skill because it helps to communicate confidently. Vocabulary and phonics are interrelated as without correct pronunciation of any word, it is impossible to speak any language (Wawire & Zuilkowski, 2020). Comprehension is the ability to understand the language and extract meaning from the text. Phonics supports learners in decoding words, developing vocabulary and fluency, contextual understanding and building connections to improve literacy skills of the learners (Kiendi, 2023). It is discussed that phonics techniques are very helpful in enhancing reading, comprehension and literacy skills.

Reading skill is regarded fundamental which is associated with all other literacy skills' acquisition (Pugh, Pawan, & Antonmmarchi, 2000). Reading is the ultimate skill of learning. It provides the foundation for student's achievements in school and all over the life. Because of reading weakness in the reading capacity, student can't get his/her educational goals. Because of significant role of reading in education, its importance cannot be avoided. The reading capability can assist the students in future to comprehend more thoroughly about any subject in which he/she wants to expand their information. Primary education is the basic education which eventually leads to higher educational stages. The main purpose of primary education is to prepare children for their more advanced academic tasks of the future. At the time of the first year of school, the base of literacy is setup. The abilities and skills that students receive at this period "work for them all over the life" (Fountas & Pinnell, 2001, p.2).

Phonics are a fundamental and systematic element for the development of reading skills among non-formal learners. Educational activities which are conducted outside the traditional school system are termed as Non-Formal Education. Non-Formal Education provides opportunities of learning to the underprivileged groups of a society. Non-Formal Education is an effective way to improve basic literacy skills among people (Charity et al., 2024). Phonics techniques are equally useful in improving the reading skills of non-formal learners. Non-Formal education continues to play a vital role in global literacy efforts, the strategic implementation of phonics instruction stands out as a key component in empowering learners and fostering lifelong literacy skills. Students of Non-Formal Education face various difficulties while acquiring literacy skills regarding the English language. With the help of phonic techniques are tailored according to the needs of the learners. Phonics is very important technique to help decoding of the words for the development of vocabulary, comprehension and reading (Bimantara et al., 2024). It is proven that phonics is very effective in improving literacy skills among students. Structured lessons, consistent practice and reinforcement of reading skills are effective in learning English in Non-Formal Education (Dilgard et al., 2022).

Phonological awareness develops a skill in the reader which leads to success in reading. Phonological awareness is a comprehension of words that can rhyme and are divided into syllables and are blend of sounds. The teaching methods used to teach phonics to the learners are called phonic techniques (Kiendi, 2023). These help a teacher and student to learn and speak in a better way. These phonics techniques are different according to the need of the letter or blend of letters. Phonic techniques such as synthetic, analytic, embedded, phonemic awareness and onset and rhyme are some common techniques used by teachers to teach phonics (Agegnehu et al., 2023). These techniques help learners to develop their pronunciation skills which leads to better speaking ability. Learners, including non-native English speakers, benefit from systematic phonics components, leading to improved decoding skills and reading comprehension. Integrating phonics into literacy programs can address fundamental reading challenges (Dilgard et al., 2022).

Statement of the Problem

Language is very crucial for students in academic life. Reading is indispensable for students' further literacy skills which encompass writing and arithmetic skills. students at beginning level needs that their phonics should be strong so that further literacy base may be strong. In this regard, students from non-formal setup need much attention to improve their

phonics and vocabulary as they belong from dispersed regions and varied backgrounds. There are certain teaching strategies i.e. synthetic, analytic, embedded, phonemic awareness and rhyme etc. are some common techniques used by teachers to teach reading. In nonformal education, to what extent phonics technique is beneficial needs to be explored. To what extent students interact with reading material through phonics and what is the improvement in phonemic awareness, vocabulary improvement, improving fluency, and comprehension level of students were main questions of investigating this topic. So, the focus of present research was “unlocking power of phonics for literacy: revolutionizing reading literacy skills development through phonics technique in non-formal basic education schools”.

Objective of the study

1. To measure the efficiency of phonic techniques on students reading skills of English language at primary level in non-formal education

Hypotheses

- H₀₁ Phonic technique has no significant positive effect on phonemic awareness of students.
- H₀₂ Phonic technique has no significant positive effect on vocabulary improvement of students.
- H₀₃ Phonic technique has no significant positive effect on improving fluency of students.
- H₀₄ Phonic technique has no significant positive effect on increasing comprehension of students.

Research Methodology

Research Design. In present research, true experimental equivalent research design with pre-test and post-test control group design was used.

Population. The population was consisted of all students at non-formal basic education schools of Tehsil Jand. 66 schools and 1716 students were the population of study. The students of primary level were selected for the study because this is the developing stage of reading skills.

Sample. The sample of study was made up of all students of English subject of four non-formal basic education schools of village Nara (located in tehsil Jand district Attock) from grade 1 and 2. Total students involved in this experiment were 32. Cluster sampling technique was used for drawing the sampling. The sample students were divided into two equal groups by pairing. Some pair found through equal marks based while remaining student were divided into two groups through using equal mean.

Research instrument. After careful consideration and selection from literature, researcher developed an achievement test to assess reading skills of students. This was used as pre and posttest. This test was asked orally which comprised on 100 marks. This was split into two sections phonics and picture support. Each section carried 50 marks each constituting 100 in total. This instrument was used to evaluate the reading skills of students in terms of phonemic awareness, vocabulary improvement, improving fluency, and comprehension level of students.

Validity of Instrument. Tool was sent to five literacy and educational/language experts to give their opinions. Their views were incorporated, and final prototype was developed to administer in the study for data collection.

Reliability of Instrument (Pilot Study). Data for pilot testing were collected from the students of grade one of Non formal basic education school in district Attock to check the reliability of the instrument. The value of Cronbach Alpha was .87* which indicated that this tool was 87% reliable and acceptable to conduct research.

Material and Lesson plan. Intervention material was developed keeping in view that feature of phonic and picture support techniques. Material was taken from the English books of class one and two. Alphabet A to Z, words A to Z, Poems, digraph, diphthongs, sentences and picture association to words were the topic of study. Same topics were taught to both groups. For this purpose, 26 lesson plan were developed. Time duration for one lesson plan was forty minutes. These topics were taught to the experimental group with phonic and picture support techniques and taught to control group with read aloud and re reading techniques.

Procedure. The research was designed to see the effect of two selective teaching techniques on students' reading skills of class one and two. It was an experimental study. It was comprised on one-month duration. There were 32 students from four schools involved in the experiment. Based on result of pre-test students were divided into two equal classes. Two classes were labelled as A and B. Class A, and B was randomly assigned to either experimental or control group. The experimental group

was taught using Phonic technique. The control group was taught using traditional techniques (Read aloud and Re-reading techniques). Both groups were taught by the researcher herself. For this purpose, researcher has taken special training for one day in selective teaching techniques (Phonic technique).

Data Analysis. Data was analyzed in t-test.

RESULTS

Table 1

Descriptive analysis of phonic technique to improve phonemic awareness

	Groups	N	Mean	S. D	$\sigma\bar{x}$
Phonemic Awareness	Experimental	16	6.62	3.32	0.83
	Control	16	0.62	1.45	0.36

Table 1 shows effect of phonic technique to improve reading skills of students in terms of their phonemic awareness. The values of mean difference (experimental group=6.62 and control group=0.62) indicates that there was significant improvement in reading ability of students through phonic techniques. This difference is further confirmed by standard error of mean (experimental group=0.84 and control group=0.36) which confirms that phonic technique appears as an effective technique to improve students' phonemic awareness.

Table 2

Descriptive analysis of phonic technique to improve vocabulary

	Groups	N	Mean	S. D	$\sigma\bar{x}$
Vocabulary	Experimental	16	7.37	2.27	0.57
	Control	16	4.87	2.60	0.65

Table 2 indicates descriptive statistics on effect of phonic technique to improve reading skills of students in terms of their vocabulary improvement. The values of mean difference (experimental group=7.37 and control group=4.87) indicates that there was significant improvement in vocabulary of students through phonic techniques. This difference is

further confirmed by standard error of mean (experimental group=0.57 and control group=0.65) which confirms that phonic technique appears as an effective technique to improve students' vocabulary.

Table 1

Descriptive analysis of phonic technique to improve fluency

	Groups	N	Mean	S. D	$\sigma\bar{x}$
Fluency	Experimental	16	6.5	2.42	0.6
	Control	16	4.18	2.16	0.54

Table 3 shows effect of phonic technique to improve reading skills of students in terms of their improvement in fluency. The values of mean difference (experimental group=6.5 and control group=4.18) indicates that there was significant improvement in fluency of students through phonic techniques. This difference is further confirmed by standard error of mean (experimental group=0.84 and control group=0.36) which confirms that phonic technique appears as an effective technique to improve students' fluency while reading the text.

Table 2

Descriptive analysis of phonic technique to improve comprehension

	Groups	N	Mean	S. D	$\sigma\bar{x}$
Comprehension	Experimental	16	6.87	1.5	.37
	Control	16	3.94	2.14	.53

Table 4 indicates descriptive statistics on effect of phonic technique to improve reading skills of students in terms of their reading comprehension. The values of mean difference (experimental group=6.87 and control group=3.94) indicates that there was significant improvement in reading comprehension of students through phonic techniques.

Table 5
Effect of phonic technique on phonemic awareness

	Levene's Test		t-test				Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower C.I. (95%)	Upper C.I. (95%)
	f	Sig.	t	Df							
Equal variances assumed	11.10	.002	6.61	30		.000	6.00	.91	4.15	7.85	
Equal variances not assumed			6.61	20.54		.000	6.00	.91	4.11	7.89	

Table 5 reflects inferential statistics on effectiveness of phonic technique to improve phonemic awareness. In this regard in Levene's test as p-value is $.002 < \alpha = 0.05$, and in t-test p-value is $.000 < \alpha = 0.05$. So, both tests indicate that there is significant positive difference of phonics technique. Therefore, we reject our H_{01} which is phonic technique has no significant positive effect on phonemic awareness of students. So, we conclude that phonic technique has significant positive effect on phonemic awareness of students. So, phonics technique is suitable for enhancement of phonemic awareness of primary level students.

Table 6
Effect of phonic technique on vocabulary

	Levene's Test		t-test				Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower C.I. (95%)	Upper C.I. (95%)
	f	Sig.	t	Df							
Equal variances assumed	.087	.770	2.89	30		.007	2.50	.86	.73	4.27	
Equal variances not assumed			2.89	29.47		.007	2.50	.86	.73	4.27	

not
assumed

Table 6 reflects inferential statics on effectiveness of phonic technique to improve vocabulary. In this regard, in Levene's test as p-value is $.087 < \alpha = 0.05$, and in t-test p-value is $.007 < \alpha = 0.05$. So, both tests indicate that there is significant positive difference of phonics technique. Therefore, we reject our H_{01} which is phonic technique has no significant positive effect on vocabulary improvement. So, we conclude that phonics technique is suitable for enhancement of vocabulary of primary level students, and it is recommended for nonformal students also.

Table 7
Effects of phonic technique on fluency

	Levene's Test		t-test		Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower C.I (95%)	Upper C.I (95%)
	f	Sig.	t	Df					
Equal variances assumed	1.13	.29	2.85	30	.008	2.31	.81	.65	3.97
Equal variances not assumed			2.85	29.63	.008	2.31	.81	.65	3.97

Table 7 reflects inferential statics on effectiveness of phonic technique to improve fluency. In this regard in Levene's test as p-value is non-significant $.29 > \alpha = 0.05$, however, in t-test, where equal variance is assumed, p-value is $.008 < \alpha = 0.05$. So, t-test indicates that there is significant positive difference of phonics technique to improve fluency. Therefore, we reject our H_{01} which is phonic technique has no significant positive effect in improvement of fluency of students. So, we conclude that phonic technique has significant positive effect on fluency improvement. So, phonics technique is suitable for primary level students' reading skills improvement.

Table 8
Effect of phonic technique on reading comprehension

Levene's Test	t-test								
	f	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower C.I (95%)	Upper C.I (95%)
Equal variances assumed	.98	.33	4.49	30	.00	2.93	.65	1.60	4.27
Equal variances not assumed			4.49	26.85	.00	2.93	.65	1.59	4.27

Table 8 elaborates effectiveness of phonic technique to improve students' reading comprehension. In this regard in Levene's test as p-value is $.33 > \alpha = 0.05$, and in t-test p-value is $.00 < \alpha = 0.05$. So, t-test indicates that there is significant positive difference of phonics technique. Therefore, we reject our H_{01} which is phonic technique has no significant positive effect on reading comprehension of students. So, we conclude that phonic technique has significant positive effect to improve reading comprehension of students, and it is suitable for primary level students' reading skills.

Findings

1. The phonic technique demonstrated a major influence on the phonemic awareness development of grade one students according to the research results. Student phonemic awareness shows a significant effect from phonic technique teaching as the t value reaches 6.61.
2. The research strategy successfully helped students improve their vocabulary knowledge. The computed t value is 2.89 and indicates a substantial difference exists between both groups. A satisfactory attitude toward English vocabulary emerges when students learn within an atmosphere, they prefer which is phonemic awareness according to this study.
3. 3. Phonic technique demonstrated a substantial effect on increasing the fluency levels of students enrolled in grade one. The Group difference becomes evident based on the t value of 2.85.

The contemporary phonemic approach proves highly successful in helping students develop their fluent language ability.

4. The study demonstrated that Phonetic instruction presents outstanding results for primary-school comprehension education. Students can benefit from this technique according to the calculated t value of 4.49. The technique proves valuable to help teachers enhance their students' comprehension of English.

Discussion and Conclusion

Research examined how students performed their reading skills when traditional disciplines were combined with the phonemic method. Research results indicated that the effect of this technique had an extremely strong impact on student reading abilities in terms of phonemic awareness, vocabulary improvement, improving fluency, and comprehension level of students. The intervention prevailed throughout every level of measurement. A distinctive difference emerged regarding phonemic awareness because of phonic technique implementation. The Mean examination score of experimental students amounted to 6.63 but control students scored 0.63. The obtained Mean difference of 6 demonstrates a very high value. As indicated by Dilgard et al. (2022) structured lessons, consistent practice and reinforcement of reading skills are effective in learning English. The research by Eldredge (2015) produced identical results. A strong impact of phonic teaching methods was discovered to have a positive influence on student reading fluency. The research results showed that experimental group achieved a mean score of 6.5 compared to 4.18 from the control group. According to Johnston and Watson (2004) synthetic phonics teaching proved superior to analytic phonics instruction. Early schooling used analytic phonics instruction differently from traditional methods and this specific approach does not deliver its advantages simply because learning occurrences happen organically. Individuals above the age of chronology develop strong phonemic awareness and reading comprehension abilities and spelling talents when taught using synthetic phonics. The teaching method additionally delivers exceptional benefits to male students.

To conclude, this study indicated effectiveness of phonics technique to enhance reading skills of students in terms of phonemic awareness, vocabulary improvement, improving fluency, and comprehension level of students. As we all know that students at primary level are learning basic syllables and letter recognition in terms of voices that are produced, so, by using phonics method teachers can improve their reading skill. Experimental group members maintained a more optimistic attitude than

the participants within the control group. Students learned English most effectively through phonemic techniques than traditional English teaching approaches. Experimental group showed meaningful performance growth regarding phonemic awareness during the study period. Experimental group participants showed a positive significant increase in their vocabulary knowledge. Experimental group participants demonstrated better fluent speaking than students in the control group. The outcomes of phonemic awareness assessment revealed better results in the experimental subgroup than control participants.

Recommendations

1. Since phonic technique proved to be effective for phonemic awareness of students at primary level, so it is recommended that in nonformal setup, where we are facing scarcity of resources in country. There may be proper mechanism for proper implementation of phonics method in schools where this method may be applied properly.
2. Usefulness of phonics method also demands properly trained teachers and personnel to implement this method in full spirit. So, its recommended that teachers may be trained continually through in-service training and pre-service training.
3. Proper implementation of phonics technique may also require awareness of parents. Since there are many dialects spoken in Pakistan which may affect the hard work of teachers in schools. So, parents, training sessions may be arranged apart tan parent teacher meetings so that they may get training and cooperate with school administration.

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