EFFECTIVENESS OF REMEDIAL PROGRAMMES IN IMPROVING THE PHONIC ANALYSIS SKILLS OF LOW ACHIEVERS IN ENGLISH AT SECONDARY SCHOOL LEVEL

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1.Introduction

Reading is primarily a visual task, it is recognition of words, it is reproducing, it is a thinking process, it is a step to personal development and the like. Turner & Nesdale (1985) in his study revealed that there is strong evidence that phonological processing and reading ability are closely related. Phonemic unawareness is a major causal factor in reading disability. Children with reading difficulties have poor awareness of grapheme- phoneme correspondences and this causes problems in reading new words. They showed that first grader's reading comprehension ability was related to the ability to segment words into sounds. Thus 'word-recognition' and the automaticity with which it happens is clearly central to fluent reading and a reader's ability to identify words and meaning is likely to be important in the diagnosis of reading abilities.

1.1 Need and significance of the study

Word- recognition skills imply the ability to pronounce and recognize the meaning of unfamiliar word. Guszak (1978), Ekwall& Shankar (1985) have identified seven sub skills for word-recognition. They are (i) Configuration (ii) Context analysis (ii) Sight words (iv) Phonic analysis (v) Syllabication (vi) Structural Analysis (vii) Dictionary skills etc.Word-recognition skills help readers identify words while reading. Of which phonics,the association of speech sounds (phonemes) with printed symbols- (graphemes) is very helpful in identifying unfamiliar words, even though the sound -symbol association in English is not completely consistent. Phonic Analysis refers to decoding of words by symbol-sound associations. Phonics, the association of speech sounds (phonemes) with printed symbols (graphemes**)** is very helpful in identifying unfamiliar words, even though the sound- symbol associations in English are not completed **c**ompletely consistent. Phonic Analysis includes the learning of sounds and rules pertaining to single initial consonant blends, consonant digraphs silent consonants, short and long vowel teams and special letter combinations.
Researchers have distinguished two word- recognition processes in reading; the phonological and the orthographic.Phonological process requires awareness of phoneme-grapheme

correspondences and orthographic knowledge involves memory for specific visual/ spelling pattern (and is sometimes referred to as lexical knowledge). A remedial programme on phonic analysis will help the students understand more about the phoneme grapheme correspondences. It is seen that few studies have been taken up under this area. Hence the significance of the study.

2. Objectives

- To study the effectiveness of a Remedial programme for improving the Phonic Analysis skills of low- achievers in English in the Secondary schools (Std.IX) of Kerala

3. Hypothesis

- Remedial Programme in Word recognition will be effective in improving the Phonic Analysis skills of low- achievers in English

4 Method adopted for the study

The purpose of the present study is to determine the effectiveness of 'Remedial Programmes' in improving the Phonic Analysis skills of low achievers in English in the Secondary Schools of Kerala (Std. IX). Considering the objectives and the nature of the data required for the study, Experimental design was used for the study.Here the investigator has taken up Pre-test- Post testNon- equivalent group design for the study.

4.1 Sample

The population for the study comprises the pupils attending IXth standard in the secondary schools of Kerala. For the Experimental study, 200 low achievers from six schools (100 each for Experimental and Control group) was taken as sample.

4.2 Tools used for the study

- Phonic Analysis Test in English (for Std.IX)
- General Achievement Test in English (for Std.IX)
- Evaluation schedule for Subject Expert

4.2.1 Phonic Analysis Test in English (for Std.IX)

The details regarding the tools used for the present study are outlined below. The test on phonic analysis contains 50 words. Here, the intention is to test the pupils' awareness of the phonological forms (sound- stress) of words. The pupils are to read each word aloud with proper pronunciation. These pronunciations are recorded using a recorder and the extent of correctness of the responses is determined by the replaying the material. The investigator, who also listens to the pupil's reading marks simultaneously in the score sheet, the extent of correctness of the response. The time allotted for reading each word is half a minute. For each correct response, one mark is allotted. While preparing the Phonic Analysis test in English ,all the steps to be followed in developing such a test were carefully followed. The test was prepared after going through the related literature; the textbooks and syllabus in English of Std. IX of Kerala State.The test was standardized after giving an initial tryout of the test on a representative sample of 120 IX th Std pupils in Trivandrum District giving

due representation to factors like, gender locality, type of school and medium of instruction. However only 100 answer scripts which were complete and properly answered were taken up for item analysis.The scores for each item in both the groups were used for calculating the discriminating power (DP) and difficulty idex (DI) of each item. The Kelly's method (Ebel and Frisbie, 1991, pp. 225-230) was used to calculate the DP and DI. Items with difficulty index (DI) between 0.20 to 0.75 and discriminating power (DP) above 0.25 were selected for the final test. Thus 50 items were selected for the final test. The procedure adopted for construction of the test provides ample evidence for the validity of the test. Face validity of the test was ascertained by subjecting the test to assessment by experts for their comments.The reliability of the test was found out using the Split- half method. The correlation between the scores for the halves was found out using the Pearson's Product Moment Coefficient of Correlation. The reliability of the half test was 0.52. The obtained value of 0.52 half reliability was corrected using Spearman- Brown Prophecy Formula. The reliability of the full test was found to be 0.68 indicating that the prepared test has reasonably high reliability.

4.2.2Generalised Achievement Test in English (for Std. IX)

The Generalised Achievement Test in English was developed by the investigators for the use of Std. IX. pupils of secondary schools of Kerala. In developing the test, all the conventional procedures to be followed in developing an Achievement Test were observed. The validity of the Achievement Test was decided by assessing the Curricular (Content) validity. For assessing the internal validity of the Achievement Test in English the curricular validity is considered.The reliability of the achievement test was determined using the 'Split- half method'. The Reliability Coefficient is calculated from two sets of scores, the first set being the total of the odd- numbered items and the second set is the total of the even – numbered items in the test. The correlation between these two sets of scores gives the Reliability Coefficient, which was found to be 0.74. The Coefficient of Correlation corrected by the Spearman – Brown Prophecy formula is 0.85. The obtained coefficient shows that the test is a reasonably reliable measure and can be considered sufficient to differentiate the validity and reliability of the Generalised Achievement Test in English.

After finding out the achievement test scores of the students they were arranged in the High. Low and Average achievement group by calculating the M+ σ, M- σ , M +/- σscores.200 low achievers were taken as the final sample for the study.These group was divided in to two Experimental and Control groups having 100 students in each group. In the light of the valid suggestions made by them, appropriate modifications in terms of correction and editing were carried out in the Remedial materials prepared.

4.2.3 Evaluation Schedule for Subject Experts

The Evaluation Schedule is meant to assess the suitability of the Remedial Programmes developed for improving the Phoni Analysis skills of low achievers in English. After having developed the Remedial Programmes in Phonic Analysi for low achievers in English in the Secondary Schools of Kerala, the programmes were submitted to 10 experts for evaluation.

4.3 Procedure adopted for the study

The study was carried our in different stages, such as (1) Identification of the low-achievers in English among the Secondary school pupils in Kerala (Std.IX) (2) The preparation of remedial materials in improving the word -recognition and reading comprehension and (3) Implementation of the Remedial programmes, for improving the Phonic Analysis skills (4) Evaluation of the effectiveness of the Remedial Programmes developed. An Experimental study with a 'Pre-test- Post- test Non Equivalent group design' was planned and for this purpose, 200 low achievers in English (100 each for Experimental and Control groups) were selected. After conducting the Pre- on Phonic Analysis test the Experimental group was taught using the Remedial programme. While the Control group was taught using the Conventional Lecture- demonstration method. The same test was administered again and the pre- test and the post- test scores were compared to test the effectiveness of the remedial programme implemented. The data collected using the different tools were tabulated and analyzed using appropriate statistical techniques like (i) Means and standard deviation and (ii) t tests (iii) ANCOVA.

5.Analysis and interpretations

Comparison of the performance of low-achievers in the Experimental and Control Groups with respect to Phonic Analysis Test in English,using Analysis of Co-variance (ANCOVA).

Here the Pre-test scores (x) and Post-tests scores (Y) of low-achievers in the Experimental and Control groups for the component of Phonic analysis Test in English were analysed using the technique of ANCOVA and the tabulated results are shown in the followingTables. The interpretation of the results is also presented below.

5.1Analysis of Component Phonic Analysis Scores

Table 1 : Results of the Summary of ANOVA of Pre-test and Post-test Scores of Low-achievers in the Experimental and Control Groups for the Component Phonic analysis

Source of Variation	Df	SSx	SSy	MS.x	MS.y	Fx	Fy
Among means	1	161.10	236.53	161.10	236.53	55.367 (P<0.01)	53.456 (P<0.01)
Within groups	198	576.12	876.11	2.91	4.43		

As per Table 1, the F test applied to the initial X scores (Fx=55.367) is significant, from which it is clear that the X means differ significantly and that the random assignment of subjects to the two groups was not quite successful. The value obtained for Fy is also significant beyond 0.01 level (Fy=53.456). This value of 'Y' means indicates that there is significant difference between the performance of pupils in the Experimental and Control groups with respect to Phonic analysis scores.

For correcting the Post-test scores for the differences in the Pre-test scores the adjusted sum of squared and adjusted mean square variance were computed. The 'F' ratio was calculated and the results are given in Table 2.

Table 2 : Results of the Summary of ANCOVA of the Pre-test and Post-test scores of Low-Achievers in the Experimental and Control Groups for the Component Phonic Analysis

Source of variation	df	SSx	SSy	SSx.y	SSy.x	MSy.X	SDy.x	Fy.x
Among means	1	161.10	236.53	195.21	134.14	134.14	2.09	30.81 (p<0.01)
Within groups	197	576.12	876.11	103.41	857.55	4.36		

From Table 2, it is clear that the value obtained for Fy.x is significant at 0.01 level (Fy.x.30.81). This shows that the Post-test Phonic analysis scores of pupils in the Experimental and Control groups differ significantly after they were adjusted for the difference in the Pre-test Phonic Analysis scores. As the F ratio is significant here, it necessitates to proceed to the test of significance for the difference between the adjusted post-test means of the Experimental and Control groups. The adjusted means of the post-test scores of pupils in the Experimental and Control groups were, therefore, calculated using correlation and regression. The results are given in Table 3.

Table 3 : Results of the Test of Significance for Difference Between the Adjusted Means for post-test scores (y) of Low Achievers in the Experimental and Control Groups for the Component Phonic Analysis

Groups	N	Mx	My	My.x	SEDy.x	t-value
Experimental	100	5.19	12.26	12.09	0.29	6.28 (p<0.01)
Control	100	3.39	10.08	10.24		

When the difference between the adjusted means of the Post-test phonic Analysis scores was tested for significance for df1/197, the ‘t’ value obtained is 6.28. The table values of significance for df 1/197 are 1.97 at 0.05 level and 2.60 at 0.01 level. So the ‘t’ value obtained is found to be highly significant. This shows that the Experimental group and the Control group differ significantly with respect to their phonic analysis scores, the difference being in favour of the Experimental group. It is also seen that the adjusted mean score of the Experimental group is higher than that of the Control group (M1y.x=12.09; M2 y.x=10.241), indicating that the Remedial programmes developed for improving the phonic skills in English are more effective in enhancing the achievement of pupils in English, compared to that of the Conventional Lecture-demonstration method.

6. Findings of the Study

Comparison of the Pres-test-Post-test scores of low-achievers in the Experimental and Control groups with respect to the Phonic Analysis skills showed that the Experimental groups gained higher scores for the total test and all conclude that the ‘Remedial programmes’ developed are more effective for improving the Phonic skills of low-achievers in English, compared to that of the Conventional Lecture demonstration method.

The above conclusion is arrived at based on the following major findings:

1. The F value obtained from the analysis of Co-variance of the pre-test and the post-test scores of students in the Experimental and Control groups for the component *Phonic Analysis* was significant. (Fy. x for *df* 1/197=30.81. p<0.01))
2. When the difference between adjusted means of Post-test scores of pupils in the Experimental and Control groups for the component Phonic Analysis was tested for significance for *df*, 197, the 't' value obtained was significant (t=6.28,p<0.01). The adjusted means of post –test scores shows that the Remedial programmes developed for improving the Phonic analysis skills in English are more effective in enhancing the achievement of pupils in English, than that of the Conventional Lecture-demonstration method.

7. Conclusion

The Remedial progammes carried out in the study for improving the Phonic Analysis skills highlighted the fact that provision of appropriate teacher activities and pupil activities,selection of appropriate modalities, adoption of proper instructional strategies will go a long way in improving the Phonic skills of pupil in English. Another interesting point to be highlighted in the context is the role of repetition drills in enhancing the power of pupils to retain the items drilled.For improving the Phonic skills,technology based resources such as, television, recorded materials ,language labs , tele-lectures, digital phonic labs etc. are of immense use. Provision should be made for every school to have all these types of digital experiences to children, which should be used continuously by the teacher and students.Beside these , the role of the teachers and guardians in providing motivation and guidance for learning English cannot be over emphasized. English being a difficult subject for the pupils, most children shrink back from learning English. In order to effect the acquisition of the language, the most important factor is the choice of the right material ,which,by its interest value ,will motivate the children to ignore the difficulty of the materials . It is hoped that the observations made above would yield fruitful results in the hands of resourceful persons who have a positive bend for effecting changes in the teaching-learning of English, which in turn ,would go a long way in improving the acquisition of language arts.

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