

SPACED LEARNING METHOD FOR ENHANCING LISTENING SKILLS OF STUDENTS WITH LANGUAGE PROCESSING DISORDER (LPD)

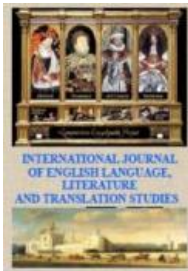
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ABSTRACT

Spaced learning is an innovative teaching-learning process. The main objective of this study was to test the effect of spaced learning for enhancing the listening skill of students with LPD. Primary school students were selected as the sample from the primary grade of Kerala state syllabus school. An experimental procedure was adopted for the study. Listening skill tests and lesson transcripts based on spaced learning were used as the tools for the study. The obtained data were analysed using Analysis of Covariance. The major findings of the study were that spaced learning is an effective Method for enhancing the listening skills of students with LPD at the primary grade

Keywords: Spaced Learning, Listening Skill, LPD

1. INTRODUCTION

Spaced Learning is an innovative method introduced in the field of education. The basic theory behind spaced learning claims that learning is much more effective when it is arranged with systematic 5 to 10-minute intervals in between highly condensed learning content. It was the British neuroscientist and educator Paul Kelly (2013) who developed and formalised the application of spaced learning. Usually, three or four intervals are arranged in between a class of content transactions. The educator compartmentalizes the pre-determined content into meaningful sessions. The educator conducts revisions and memorises the previously taught content into meaningful intervals. The content formation in the learner's mind happens easily due to the frequent revisions and repetitions of the same content. Moreover, this constructed content will last in the learner's memory for a long time. The spaced learning method was developed in contrast to the theory of the massed learning approach. The spaced learning method was established against the concept of making learning tiresome by information overloading and lack of repetition. Paul Kelly has formalized the application of spaced learning based on the theoretical study conducted by American Neuroscientist R. Douglas. Douglas put forward the concept of content-based classes of 15-20 minutes duration encompassing three intervals for compartmentalising classes into these sessions. These intervals provide knowledge nourishing time for human brain to combine the previous knowledge with that of the new information. Repetition of the new concepts helps in the accommodation of new knowledge in the cognitive structure of the learner. Given below are the different progressive stages through which spaced learning progresses:

2. REVIEW OF LITERATURE

Will Thalheimer (2006) published an article on Spacing Learning Events Over Time: What the Research Says. The research shows that spacing learning over time produces substantial learning benefits. These benefits result from different mechanisms, including those based on repetitions and those based on other factors. Spaced-repetition effects are particularly noteworthy given the enormous research literature supporting their use. The following findings are highlighted in the report: 1. Repetitions—if well designed—effectively support learning. 2. Spaced repetitions are generally more effective than non-spaced repetitions. 3. Both presentations of learning material and retrieval practice opportunities produce benefits when utilised as spaced repetitions. 4. Spacing is particularly beneficial if long-term retention is the goal—as in most training situations. Spacing helps minimize forgetting. 5. Wider spacings are generally more effective than narrower spacings, although there may be a point where too wide spacings are counterproductive. A good heuristic is to aim for having the length of the spacing interval be equal to the retention interval.

Kanj (2016) conducted a study on spaced repetition promotes efficient and effective learning: policy implications for instruction and proved that spaced repetition is a solution to all the significant learning barriers faced by students. he also stated that Spaced practice enhances memory, problem-solving, and transfer of learning to new contexts and Spaced practice offers great potential for improving students' educational outcomes.

3. RATIONALE OF STUDY

(1) The spaced learning method is most effective for sustaining the listening skills of students with LPD. Students with LPD are found to be backward in their studies since they cannot focus on the same content for a long time. The repetitive Method followed in spaced learning helps LPD learners and learners with attention deficiency to sustain their interest or attention span.

4. STATEMENT OF THE PROBLEM

The present study is entitled as SPACED LEARNING METHOD FOR ENHANCING LISTENING SKILL OF STUDENTS WITH LANGUAGE PROCESSING DISORDER (LPD)

- Definition of key terms
- Spaced learning
- Spaced learning is a learning technique that involves repeating information over rather than all at once
- LPD

This is a subset of APD, characterised by difficulties with processing spoken language. The person may have difficulty attaching meaning to sound groups representing words, sentences, and stories

5. OBJECTIVES OF THE STUDY

- (1) To develop a Spaced Learning Method for students with LPD to enhance listening skill
- (2) To test the effectiveness of the Spaced Learning Method for enhancing the listening skill of students with LPD

6. HYPOTHESIS OF THE STUDY

There will be a significant difference between the experimental group and the control group when the treatment groups are exposed to experimental treatment

7. METHODOLOGY

The experimental method was adopted for the study. Two groups were selected as the experimental group and the control group

8. SAMPLE

Sample selected from primary grade students. A total of 40 students possessing hyperactivity were selected. Among 40, twenty were selected as the experimental group and twenty were selected as a control group

9. TOOLS EMPLOYED

- (1) Spaced learning Method based lesson plans
- (2) Listening skill test

10. PROCEDURE OF DATA COLLECTION

The listening skill test was administered as a pre-test for the experimental and control groups. Then, the experimental group was treated with a spaced learning Method, and the control group was treated with the present teaching method. The same content was taught to both groups. After treatment, the same listening skill test was administered as a post-test. Scores of pre-tests and post-tests were computed for analysis

11. STATISTICS TECHNIQUES EMPLOYED

The samples were not equal groups. Nullifying the effect of extraneous variables the investigator applied analysis of covariance for analysing the data

12. RESULT AND DISCUSSION

In the present study, the sample is attention deficit hyperactive primary school students. So sorting out the students into two equal groups is inconvenient. So the investigator selected two non-equated intact class groups for the study. Hence it is necessary to analyse the data by using Analysis of Co – variance (ANCOVA)(Garrett). Thus, the difference in the initial status was removed statistically (Glass & Hopkins, 1996). ANOVA was done before proceeding to ANCOVA (Garrett), and the F ratios for the pre-test and post-test were computed. The summary of the F ratio of the listening skill test of attention deficit hyperactive primary school students is given in Table 1.

Table 1: F ratio of pretest and post test scores of listening skill test of LPD

Source of variation	df	SSx	SSy	MSx	MSy	Fx	Fy
Among means	1	0.16	95.20	0.16	95.20		
Within groups	48	304.72	205.12	6.35	4.27	0.03	22.28**
Total	49	304.88	300.32				

From Table 1, it is clear that there exists no significant difference in the pre-score of the listening skill test of attention deficit hyperactive primary school students of experimental and control groups as the obtained Fx value (Fx = 0.03, p > .05) is not significant at .05 level of significance. From Table 1, it is given that the obtained Fy value (Fy = 22.28, df = (1,48), p < .01) is significant at 0.01 level of significance. It indicates a significant difference exists in the post-test scores of the listening skill tests of attention deficit hyperactive primary school students of experimental and control groups. In ANCOVA, the adjusted sum of squares for post-test scores was computed (Winer, 1971). The F ratio was calculated by using ANOVA, and the summary of the result is given in Table 2

Table 2: F ratio of adjusted post-test scores of listening skill test of LPD students Source of variation

	SSx	SSy	SSy.x	MSy.x	Fy.x	t
Among Means	1	0.16	95.2	97.65	97.65	26.24**
Within Groups	47	304.72	205.12	174.88	3.72	

The obtained Fyx ratio was significant at .01 level of significance as the obtained Fyx (Fyx = 26.24, p < .01) is significant. Hence, it is clear that the adjusted post-test means differ significantly by using the initial difference on the test.

The adjusted post-test means of listening skill test of students with LPD primary school students of experimental and control groups were compared, and this difference was tested for significance. The result of comparison of adjusted post test scores of listening skill test of LPD primary school students of experimental and control groups is given in Table 3

Table 3: Result of comparison of adjusted post test scores of listening skill test of LPD primary school students of experimental and control groups

Groups	N	Mx	My	My.x(Adjusted)	SEM	t
experimental	30	14.37	20.57	20.58	0.56	5.12**
Experimental	30	14.25	17.75	17.73		

Table 3 gives that the obtained value of t (t = 5.12, p < .01) is significant at .01 level of significance. It implies that the LPD primary school students of experimental and control groups differ significantly in their post-test scores of listening skills as they were adjusted to the pre-test. Table 3 also shows that the mean scores of post-test scores of the listening skill test of LPD primary school students of the experimental (M = 20.58) is significantly higher than that of the control group (M = 17.73). Hence, it can be concluded that Spaced Learning

is effective for enhancing listening skills of LPD primary school students. This result is graphically represented in the Figure 1.

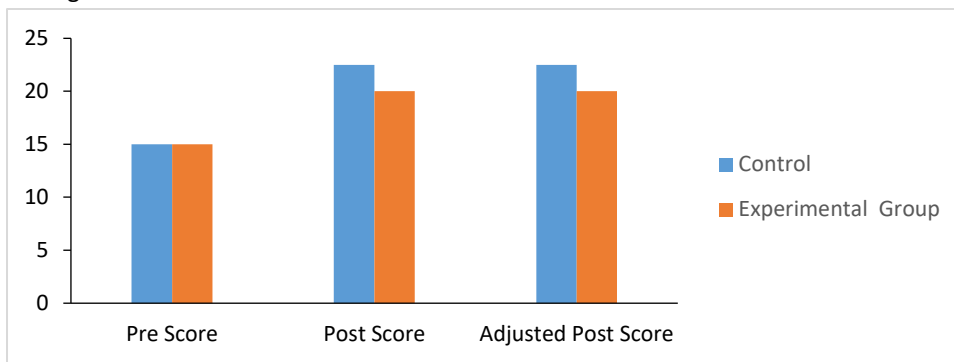


Fig. 1: Graphical representation of mean scores of listening skill test of LPD primary school students of experimental and control groups

13. FINDINGS AND CONCLUSIONS

- The study revealed that spaced learning is an effective method for enhancing the listening skill of students with LPD at the primary grade
- This method can be included in the school curriculum to enhance the listening skill of students

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