SPACED LEARNING PROGRAMME FOR SLOW LEARNER STUDENTS

Asst. Prof. Pushpa Patil
H.G.M Azam College of Education.

Abstract

A “slow learner” is a term used to describe a student who has the ability to learn necessary academic skills, but at rate and depth below average their peers. In order to grasp new concepts, a slow learner needs more time, more repetition, and often more resources from teachers to be successful. Integration spaced learning in our conventional system of education minimizes the problem of slow learners and also the gifted. The objective of the present study was to develop a programme based on Spaced Learning for Slow Learners and test its effectiveness. The methodology used for the study is a experimental. In the present study the researcher has selected the Ten students (Slow Learner)of grade IX from SSC board of Anglo Boys High School in Pune city. The researcher has used purposive sampling technique for the current research. The statistical tool used was ‘t’ test. The major findings of this study there was a significant difference between the means score of Pre-test and Post-test of experimental group. Thus Spaced learning program was effective for slow learner students in bringing about learning of the chapter: Life Around You. (The research hypothesis is accepted)

Keywords : Spaced Learning Programme, Slow Learner student

Introduction

A Spaced Learning session consists of three inputs divided by 10-minute breaks, which students spend doing a simple activity such as dribbling a basketball or playing with modeling clay. The first input is a lecture in which the teacher presents a large body of information, usually supported by a PowerPoint presentation. The second input focuses on recall, so students might be presented with the same PowerPoint presentation, now missing many key words, or they might carry out simple math’s problems using the formulae presented in the first input. The final input focuses on understanding, so students should carry out a task that applies the knowledge or skills they have just acquired. This process of rapid structured repetition, separated by short breaks, embeds the information in the long-term memory.

A “slow learner” is a term used to describe a student who has the ability to learn necessary academic skills, but at rate and depth below average their peers. In order to grasp
new concepts, a slow learner needs more time, more repetition, and often more resources from teachers to be successful. “Slow learners are children who are doing poorly in school, yet are not eligible for special education; their intelligence test scores are too high for consideration as a child with mental retardation” (Khan, Sultan Muhammad, 2008).

Integration spaced learning in our conventional system of education minimizes the problem of slow learners and also the gifted.

Why Slow Learning?
One of every six students that are in the classroom today has been classified as slow learners (Danielle, 2007). Usually, this type of child is very difficult to recognize. Slow learners are students with below average cognitive abilities who are not disabled, but who struggle to cope with the traditional academic demands of the regular classroom (Danielle, 2007).

There are different reasons for slow learning. Slow learning can be due to their mental ability, family background, illiterate parents, culture problems, avoidance by the parents in early childhood, mental illness (Khan, Sultan Muhammad, 2008).

NEED OF THE STUDY

The traditional —chalk and talk! method of teaching is carried since many years, where few students used to understand the content i.e. learning by understanding and those who didn’t understand the content used to mug up. In science students faced problem in learning scientific laws, hierarchy, classification of living things etc. This study attempts to take the learning and memorizing into consideration to bring out better outcomes in students results. And creates interest toward the subjects and avoid dropouts.

IMPORTANCE OF THE STUDY

1. Spaced Learning is the most efficient, and effective, method of transmissive learning we have encountered. It helps in understanding the content in innovative way and avoids boredom fatigue. (making memory sticks)

2. Spaced Learning has a very specific purpose to help students acquire a very large quantity of information within a small span of time.

3. Spaced Learning helps to cover and retain a whole subject module's content in approximately an hour.

4. Students who carry out enquiries become expert learners', able to find, interpret, and evaluate information for themselves.

5. Students' concentrate more in learning due to spaced learning methods, gets motivation, develop confident and there are no fear of examination.
STATEMENT OF THE PROBLEM
To develop a programme based on Spaced Learning & test its effectiveness on the achievement of Slow Learner students of grade nine in Pune city.

OBJECTIVES OF THE STUDY
1. To develop a programme based on Spaced Learning for Slow Learners
2. To assess the effectiveness of Spaced Learning Program in Science subject.

RESEARCH HYPOTHESIS
There will be significance difference between the mean scores of Pre-Test and Post-Test after the implementation of spaced learning program in science for slow learner

NULL HYPOTHESIS
There will be no significance difference between the mean scores of controlled group and experimental group after the implementation of spaced learning program in science.

ASSUMPTION
Integrating spaced learning in our conventional system of education minimizes the problem of slow learners and also the gifted (M. A. Musthafa, 2013,)

SCOPE
1. This study focuses on all slow learner students of English medium schools of Pune city
2. This study focuses on the science subject of grade nine.

LIMITATIONS AND DELIMITATION

LIMITATIONS
1. The effect of classroom atmosphere, motivation level and attitude of the student using the space learning development programme has not been considered.
2. The result of the study will be based on the responses given by the sample.

DELIMITATIONS
1. The present research is delimited to only English medium schools of SSC Board Schools.
2. Research is delimited to only 9th standard low learner students.
3. This study is delimited to only science unit: Life around you.

POPULATION
The population for the present research study consists of all the slow learner students of ninth standard SSC Board, English Medium Schools of Pune city.

SAMPLING METHODS
For the study the researcher has taken a Purposive Sampling method which is based on non-probability theory of sampling. The sample comprised of 10 students, each of standard ninth
from Anglo-Urdu Boys High School, Pune. Both boys and girls were included in the sample. The medium of instruction of the program was English.

RESEARCH DESIGN
Experimental Research Design – One group Pre-Test & Post-test design

DATA COLLECTION TOOL:
- Questionnaire
- Achievement test

STATISTICAL TOOL:
- t-Test

PROGRAM DEVELOPMENT

STEPS IN SPACED LEARNING:

FIRST INPUT: In first input teacher explains the condensed topic with the help of power point presentation. After explanation teacher gives first break for 10 minutes.

FIRST BREAK: In this first break teacher conduct any of the activity apart from studies for only 10 minutes. Activity may include physical exercise, drawing, art, craft making, clay model making etc.

SECOND INPUT: In second input teacher keeps key words blank and ask student to complete it and simultaneously she repeats the point. After second input teacher gives a second break for 10 minutes.

SECOND BREAK: In this second break teacher conduct any of the activity apart from studies for only 10 minutes. Activity may include physical exercise, drawing, art, craft making, clay model making etc.

FINAL OUTPUT: Teacher circulates handouts/test paper to the students where they are free to discuss, recall and complete the paper

VARIABLES

A. Independent Variable : Program based on Spaced Learning
B. Dependent Variable : Achievement level of the slow learner students.
C. Extraneous Variables : Age factor, interest, concentration, fatigue.
RESEARCH PROCEDURE:

- PREPARATION OF THE TOOL
- VALIDATION OF THE TOOL
- PILOT STUDY
- FINALIZATION OF THE TOOL
- IMPLEMENTATION OF THE PLAN
- POST-TEST

Testing Hypothesis

<table>
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<tr>
<th></th>
<th>0.05 LEVEL</th>
<th>0.01 LEVEL</th>
<th>REMARKS</th>
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<tbody>
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<td>2.00</td>
<td>2.66</td>
<td>H0 Rejected</td>
</tr>
<tr>
<td>„t” calculated</td>
<td>11.68</td>
<td>11.68</td>
<td>H1 Accepted</td>
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OBSERVATION: After calculating the ‘t’ test it was observed that there was a significance difference in the _t_ calculated value which was more than the t-table value which specified that the null hypothesis was rejected and the research hypothesis was accepted.

Findings:

- The finding here show that the _t_-value i.e. 11.68 is greater than the table value i.e. 2.66 at 0.01 level. Therefore the difference is significant and so the null hypothesis is rejected and the research hypothesis is accepted.

- Hence, the analysis of the data indicates that the spaced learning program was effective for slow learner students in bringing about learning of the chapter: Life Around You.

CONTRIBUTION TO THE FIELD OF EDUCATION

- In modern times one can see the continuously changing atmosphere and situations which requires verification of existing knowledge in the teaching learning process and if required a change in it can be acquired in a better manner only through Spaced Learning method.
Spaced learning as a method of teaching school subjects can contribute tremendously for the development of a more effective teaching-learning process.

The aim of this method is to get children interested towards sciences subject where it is difficult to understand, learn, retain and recall certain condensed topics, which is beyond imagination or practical work. And this could happen best only when the method is Spaced Learning.

use of Spaced Learning method can increase child's understanding, learning, and recalling skills. Not only in terms of study but also makes students active and enthusiastic throughout the teaching-learning process.

Spaced Learning method also increases the creative thinking of a child as during break teacher can conduct various activities such as model making of clay, drawing, solving puzzles or maze etc.

As during the spaced learning sessions only physical activity or art and craft is done, there is no need of different physical exercise periods or art and craft periods.

By this method there is reduction in the percentage of fear for exam and students are more confident about the content.

I hope that this research can be of value to students teachers and educators who are seeking ways of using new methods and techniques of teaching-learning.

References :

http://www.jstor.org/stable/1421733
http://www.work-learning.com/catalog
http://eric.ed.gov/?q=review+of+spaced+learning&id=EJ937893
http://eric.ed.gov/?q=review+of+spaced+learning&id=EJ999814
http://makingminds.net/2014/10/neuroscience-education-trials-announced