Construction and Try-Out of Memory Development Programme Elementary and Secondary School Students

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Abstract:
This abstract provides an overview of the rationale, methodology, implementation, and preliminary outcomes of a Memory Development Programme designed for elementary and secondary school students, emphasizing its potential to address memory-related challenges in educational contexts.

This study introduces the development and implementation of a comprehensive Memory Development Programme tailored for elementary and secondary school students. The research addresses the pressing need for structured interventions aimed at enhancing memory skills within educational settings, fostering improved learning outcomes, and supporting cognitive development among young learners.

Keywords: *Memory Development Programme, Memory, Elementary and secondary school students*

1. Introduction

It has been widely accepted by educationists and philosophers like that one of the aims of Elementary and secondary school students' instruction are acquisition and expansion of horizons of knowledge and its retention for further use in meeting real-life situation and problems. But unfortunately, and the teachers all over will agree, that they have come face to face with a typically annoying reality which is that the thought are enable to bring the delivered set of knowledge to the level of conscious recall to memory as would be generally termed. According to Plato "All knowledge is but remembrance"

In any learning situation, what is of paramount importance is, to determine how best to retain what has been learned. Ideally, the learner should be able to forget what he has no need to remember and retain what he needs. On the contrary, he still forgets much that would be needs. On the contrary, he still forgets much that would be describe to remember, it has been amply acknowledge that without being able to recall and remember the previously learnt material of knowledge, one's power or levels of achievement would almost be nil, not alone academically but even generally in existence.

Stored information plays a critical role in life of many animals. Knowing a nest location, landmarks for navigation in a home range, where food and water have been found in the past, and how previous social interactions with another animal have turned out, all are examples of critical pieces of information in shaping future behavior.

Intrinsic to the success of almost any cognitive operation, is the role of memory. In general, memory is an organism's ability to store, retain, and recall information and experiences. Therefore, it is the basis for all higher forms of learning and higher-level problem solving. The question whether animals have a memory can be rephrased as can the effect of any kind of "training" persist over a longer period? And by "training" we mean information that has been taken in.

There are three main processes related to memory encoding, storage and retrieval. In order to form new memories, information must be changed into a usable form, which occurs through the process known as **encoding**. Encoding is responsible for receiving, processing and combining the received data. Once information has been successfully encoded, it must be **stored** in memory for later use. This is the creation of a permanent record of the encoded information. Much of this stored memory lies outside of our awareness most of the time, except when we actually need to use it. Finally, the **retrieval** process allows us to bring stored memories into conscious awareness. It's calling back the stored information in response to a specific cue for use in a process or activity.

Equine research has only recently begun to investigate learning ability, emotionality, physiology, genetics and how these things relate to performance and to each other (Wolff, 1997). From a natural equine perspective, the memory of a horse is critically vital to survivability, because he relies upon flight to survive (Miller, 1995, 1998). But because most horses are currently domesticated, which also means that they a frequent interaction with humans (recreational and/or competitive), a good understanding of how horses learn is critical for good welfare. If we take a backward approach, we can see the following steps a behavioral expression was triggered by the internal motivation of a horse, a specific context and a stimulus. This can be based on a long-term or short-term memory recall, or a novel experience. So, it is critical how a stimulus "enters" the horse and what will happen with this stimulus. If we know how horses perceive these stimuli (which at the end will trigger a final behavior), we can continue horse handling in a more understandable way. Successful learning and understanding memory processes are essential for a good human-horse interaction and training programs (Murphy, 2007).

2. Rationale of the study

Specifically, it would not be wrong to say that due to malfunctioning of the memory factory, many children are categorized of as educationally backward to handicapped and thus have to suffer. They being the case, it becomes imperative that the students, parents and teachers be made aware of the requirement of diagnosing the problematic are scientifically. In case malfunctioning of memory is to be blamed than remedial assistance in this in the form of techniques for training the memory is made available to them. Keeping pace with the latest trends, which are to make education process, child oriented and value the superior concept of 'diagnostically base teaching', this research sets out to fulfill the demand of the times.

The present resource provides guidelines and techniques exhibit the process of training the memory in manner for superiors and beneficial in the following ways. Existing memory levels of the students motivating them to achieve higher standard (levels). Module provides specific techniques for coping with particular problem areas in memorizing the different aspects of Elementary and secondary school student's curriculum. Students can decide on their own weakness and technique to overcome them. Module will guide not only the students but can also assist parents, head teacher and teachers to play a vital role in the promotion and training of the memory. Malfunctioning of the memory could be remedied

through the practice of training of memory or specific techniques thereby assisting students to improve over all academic performance in term.

It sets out to fulfill the ensemble those strategies that train memory to created would be provided to streamlined children to improve their power of retention of the learned set of knowledge and thus assist in the improvisation of the education process. Thus, this effect has been for.

3. Statement of Problem

The development of memory skills among individuals, especially in educational contexts, is crucial for effective learning, academic performance, and cognitive development. However, the lack of structured and tailored Memory Development Programs specifically designed for learners within certain age groups, such as elementary or secondary school students, poses a significant challenge.

This absence often leads to varied memory-related issues, including difficulties in information retention, recall, and application of learned concepts. Existing educational systems might not adequately address the diverse cognitive needs of students, resulting in suboptimal academic achievements and hindered personal development.

Hence, the primary problem addressed in this study is the deficiency of a comprehensive, structured, and age-appropriate Memory Development Programme tailored specifically for elementary or secondary school students. This gap in educational resources calls for the construction and effective try-out of a specialized program aiming to enhance memory capabilities among learners within these age cohorts.

4. The Statement of Problem involves

Lack of Targeted Memory Development Programs There is a notable absence of memory-focused programs designed to meet the cognitive needs and developmental stages of elementary or secondary school students.

Impact on Academic Performance The deficiency in memory enhancement programs might negatively impact students' academic achievements, comprehension, and retention of academic content, thereby affecting overall learning outcomes.

Educational Implications The absence of a structured Memory Development Programme tailored for specific age groups might hinder educators' ability to address individual learning needs adequately, leading to potential disparities in cognitive skill development among students.

Therefore, this study aims to address these challenges by constructing and implementing a specialized Memory Development Programme targeted at elementary or secondary school students. The development and trial of this program aim to mitigate memory-related issues, foster improved learning experiences, and enhance academic performance among these cohorts.

5. Objectives of the study

1. To study the effect of Memory Development Module on organization capacity and its components on the elementary and secondary school students.

2. To study the effect of Memory Development Module on Meta-Cognition and its components for the elementary and secondary school students.

6. Definition of the Terms
It is inevitable to define the keywords of the statement in context of present research, because memory itself accepted as complex process among other terms.

7. Finalization
- The act of putting something in to its final form (end form).-Oxford dictionary
- The process of arriving of the most agreeable form by consultations with experts (Operational Definition)

8. Module
- A module is strategy or an action plan for attacking a problem effectively. (Mulia, 1998)
- Module on memory is a multistage, systematic, scientifically, oriented, programmed in the form of a set of interaction to deal with memory resistance. (Operational Definition)

9. Improvement
- "The act of upgrading" (Electronic Thesaurus)
- A raise in the performance of memory test scores would be treated as improvement. (Operational Definition)

10. Memory
- "The power that we have to store our experiences and to bring them into the field of consciousness sometimes offers the field of consciousness, while sometimes offers the experiences have occurred is termed as Memory"-Ryburn
- Calculated scores, earned on memory test would be treated as the memory. (Operational Definition)

11. Population and Sample
In this present study students of the Elementary and secondary school students of the Gujarat state were considered as the population of the present study.

In this present study students of the Elementary and secondary school students from the Delhi Sate were selected for the present study. In this present experimental study students were selected according to their percentage of standard VIII with 60% to 80% and they were decided in to two parallel group considering pair of two group with their percentage, as the experimental group and control group.

12. Tools for the Research-
In this present research tools were prepared and standardized by the investigator. Reliability and validity were calculated by the investigator.

13. Method of Research
In this present study experimental consisting of a single group design or experimental method were conducted. Pre-test and posttest were applied to the both groups.

14. Variables of the study

A field experimental consisting of a single group design or experimental method were conducted by identifying the following variables.

Table 1 Variables of the study

Independent variable (x)	Memory module
Dependent variable (y)	Effect of memory module on students

15. Experimentation of the study

The adequate elements of control were introduced in the experiment by deciding the extraneous variable and testing the effect of memory module on all the extraneous variables, so that valid result can be arrived at. These for the module were administered to the students as a whole and the results were calculated after categorizing them on the above extraneous variables. Memory level of students of Elementary and secondary school students were decided on the basis of the results of their 1st semester examination. The pre-test, post-test scheme will be adopted to record the findings.

16. Data Collection

In this research data were collected by using achievement test in both group as well as pre-test and post-test-oriented score were interpreted for the research conclusion.

17. Data Analysis

In this present research data were analyzed according to the experimental variable of the selected group. Mean, SD, t-value, Statistical technique was applied for the selected group of variables of data.

Comparisons of mean scores among the students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on sample of total students

Comparisons of mean scores among the students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on sample of total students are as follows.

Ho1 There will be no significant difference between mean scores among the total sample students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test

Table 2: Mean Score of Memory-Test and Post-Test on Conventional Teaching Technique and Memory Module Teaching Technique on the sample of total students

Measurment	Memory-test of control group	Post-test of control group	Memory-test of exp. group	Post-test of experimental group
N	45	45	53	53
Mean	42.4	55.31	42.77	86.20
Correlation	0.82			

From the above table, it is shown that Correlation is found 0.82 between scores among the sample of total students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test, which shows that there is high

relationship between Memory-Test and post-test of sample of total students. The mean score of the Memory-Test and post-test of sample of total control group of Conventional Teaching Technique were found 42.4 and 55.31 respectively, which shows that the mean score of Conventional Teaching Technique increased in the post-test in the small scale. The mean score of the Memory-Test and post-test sample of total of Experimental group of Memory Module Teaching Technique were found 42.77 and 86.20 respectively, which shows that the mean score of Memory Module Teaching Technique increased in the post-test in the large scale. Thus, it has been observed that the mean score of the Experimental group of Memory Module Teaching Technique were found increased in the post-test in the large scale.

Table 3: ANCOVA on Conventional Teaching Technique and Memory Module Teaching Technique on the sample of total students

VARIABLE	DF	SSx	SSY	Ssxy	Ssyx	Msy* Vyx	FYX
SSms	1	3.4	23231.6	280.91	22567.25	22567.25	394.96
SSwg	96	6056.08	13750.36	7074.89	5485.27	57.14	0
	97	6059.48	36981.96	7355.8	28052.52	0	0

From the above table, calculated value of SS-among group of Conventional Teaching Technique on Memory-Test and post-test were found 3.4 and 23231.6 respectively, while experimental group of Memory Module Teaching Technique on Memory-Test and post-test were found 280.91 and 22567.25 respectively on sample of total students. SS-within the group of Conventional Teaching Technique on Memory-Test and post-test were found 6056.08 and 13750.36 respectively, while experimental group of Memory Module Teaching Technique on Memory-Test and post-test were found 7074.89 and 5485.27 respectively on sample of total students. Analysis of Co-variance between the scores among the sample of sample of total students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test on Memory-Test and post-test was found 394.96 with reference to SS-among the group of the calculation was found 22567.25 while SS-within the group of the calculation was found 57.14. Calculate Value of Analysis of Co-variance of the experimental group found significant at 0.01, level of significance. So it can be said that the mean score of the experiment group are found higher than mean sore of control group of students of sample of total students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test. It has been also observed that the mean score of the Experimental group of Memory Module Teaching Technique were found increased in the post-test in the large scale. So, **Ho₁** is rejected at 0.01, level of significance, which is stated as "There will be no significant difference between mean scores among the total sample students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test." Hence, It can be conclude that the Memory Module Teaching Technique found significant with comparisons of Conventional Teaching Technique on Memory Test on sample of total students.

Comparisons of mean scores among the students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on sample of total male students

Comparisons of mean scores among the students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on sample of total male students are as follows.

Ho₂: *There will be no significant difference between mean scores among the total sample of male students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test*

Table 4: Mean Score of Memory-Test and Post-Test on Conventional Teaching Technique and Memory Module Teaching Technique on the sample of total male students

Measurment	Memory-test of control group	Post-test of control group	Memory-test of exp. group	Post-test of experimental group
N	32	32	36	36
Mean	42.03	52.93	42.16	85.77
Correlation	0.84			

From the above table, it is shown that Correlation is found 0.84 between scores among the sample of male students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test, which shows that there is high relationship between Memory-Test and post-test of sample of male students. The mean score of the Memory-Test and post-test of sample of male control group of Conventional Teaching Technique were found 42.03 and 52.93 respectively, which shows that the mean score of Conventional Teaching Technique increased in the post-test in the small scale. The mean score of the Memory-Test and post-test sample of male of Experimental group of Memory Module Teaching Technique were found 42.16 and 85.77 respectively, which shows that the mean score of Memory Module Teaching Technique increased in the post-test in the large scale. Thus, it has been observed that the mean score of the Experimental group of Memory Module Teaching Technique were found increased in the post-test in the large scale.

Table 5: ANCOVA on Conventional Teaching Technique and Memory Module Teaching Technique on the sample of total students

VARIABLE	DF	SSx	SSY	Ssxy	Ssyx	Msy* Vyx	FYX
SSms	1	0.31	18270.79	75.34	18092.66	18092.66	329.83
SSwg	66	4803.97	10278.1	5655.4	3620.37	54.85	0
	67	4804.28	28548.89	5730.74	21713.03	0	0

From the above table, calculated value of SS-among group of Conventional Teaching Technique on Memory-Test and post-test were found 0.31 and 18270.79 respectively, while experimental group of Memory Module Teaching Technique on Memory-Test and post-test were found 75.34 and 18092.66 respectively on sample of total students. SS-within the group of Conventional Teaching Technique on Memory-Test and post-test were found 4803.97 and 10278.1 respectively, while experimental group of Memory Module Teaching Technique on Memory-Test and post-test were found 5655.4 and 3620.37 respectively on sample of total male students. Analysis of Co-variance between the scores among the sample of sample of total male students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test

on Memory-Test and post-test was found 18092.66 with reference to SS-among the group of the calculation was found 54.85 while SS-within the group of the calculation was found 329.83. Calculated Value of Analysis of Co-variance of the experimental group found significant at 0.01, level of significance. So, it can be said that the mean score of the experiment group is found higher than mean sore of control group of students of sample of total male students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test. It has been also observed that the mean score of the Experimental group of Memory Module Teaching Technique were found increased in the post-test in the large scale. So, **Ho$_2$** is rejected at 0.01, level of significance, which is stated as "There will be no significant difference between mean scores among the total sample of male students of Elementary and secondary school students after learning through Conventional Teaching Technique and Memory Module Teaching Technique on Memory Test." Hence, it can be concluded that the Memory Module Teaching Technique found significant with comparisons of Conventional Teaching Technique on Memory Test on sample of total male students.

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