



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING MNEMONICS IN ENHANCING THE PERCEIVED MEMORY AMONG THE FIRST YEAR OF DIPLOMA IN GENERAL NURSING AND MIDWIFERY (DGNM) STUDENTS IN MAA TARACHANDI INSTITUTE OF NURSING AT ROHTAS, BIHAR STATE

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ABSTRACT:

A study assess the evaluate of structured teaching programme regarding mnemonics in enhancing the perceived memory among the DGNM nursing students. The Research approach used for this study was quantitative approach. The research design for this study is pre experimental research design. The study was conducted at Maa Tarachandi Institute of Nursing at Rohtas, Bihar state. The sample size for the study consist of 40 college students, who fulfilled the inclusion criteria are included as sample for the study. Purposive sampling technique was used and the college students. Data analyzed by using descriptive and inferential statistics on the basis of objectives and hypothesis of the study. The data was planned to be presented in the form of tables and figures. In present study, show that distribution of sample according to the level of knowledge on pre-test 27(67.5%) of college students had inadequate level of perceived memory, 13(32.5%) had moderate level of perceived memory. Whereas during post-test 7(17.5%) of college students had moderate level of perceived memory and 33(82.5%) of college students had adequate level of perceived memory. Data on evaluate of structured teaching programme on level of perceived memory on mnemonics among college students. Paired 't' test was used and it reveals that difference observed between the value of pre-test and post-test were true difference. Thus, it proves that the structured teaching programme regarding mnemonics to enhance the perceived memory among college students is effective at 5% ($p < 0.001$) level. It's reveals that there is significant association found between pre-test level of perceived memory of college students with their educational qualification of parents, at 5% ($p < 0.05$) level.

KEY WORDS: Assess, effectiveness, mnemonics, college students.

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I.INTRODUCTION:

It is a great to reminisce about good memories of our past. It was enjoyable when it was today .so learning to enjoy today has two benefits. "It gives me happiness right now, and it becomes a good memory later".

Memory is defined as retention of learned information and experiences. It is an extension of learned information and experiences as well. Thus memory is a distinct cerebral function, separable from other cognitive abilities. However it is not a unitary faculty of mind but is composed of multiple systems that have different operating principles and neuro anatomical regions. Memory is the ability to maintain primarily learned information with an internal storage system, so that it may be accessed at present or later. The stored information can be retrieved and utilized at any time in life whenever needed.

Memory is formed from the time that we are born and it is a continuous process of events, experiences and situations which we receive through the senses. This vast information should be stored in a systematic manner so that it can be easily retrieved when necessary. This is like trying to locate a particular book from a huge library. If there is a proper catalogue, list made with reference to either subject , title or author of the books then finding the book is very simple task but if all these lists or catalogues are unavailable, locating the book becomes a very tedious and confusing job.

The term memory comes from a Latin word 'mnemonic', meaning "to be mind full of "or" to serve as a reminder "the term memory refers to what is retained-the total body

of remembered experience, as well as a specific experiences, that is being recalled. So memory is either retaining experiences or identifying, recalling them successfully at the right moment. Memory is an integral part of our day to day life. In every work that we do and every form of communication, we rely completely on memory of past experiences, conversations, information and skills. It is also the most important and fundamental aspect of the teaching learning process. In the teaching learning process, the learner has to remember the information, knowledge and wisdom gathered by self and others. There is a definite process through which all this is stored in the brain.

Mnemonic, a word derived from the Greek word *mnemonikos* ("of memory"), is a technique used to assist memory dating back to 477 BCE.

A mnemonic can be classified by its form (e.g., an acronym based on initial letters of the target material) and by its function (e.g., recalling a fact versus recalling a process), and Bellezza offers further refinements in classification. We refer readers to for a review of mnemonics in educational settings in general.

In the field of cognitive psychology, mnemonic techniques are considered to be strategies for encoding new information in memory in such a way that they can be more easily retrieved. Among the most studied techniques are those involving imagery or verbal mnemonics, such as using the first letters of a set of words to form an acronym or phrase or using the words to make up a story. The materials typically used in controlled laboratory

experiments are lists of words, but more applied studies have been conducted with K-12 students using classroom materials. It has long been known that memory performance is best when information is encoded in a meaningful or organized manner

For example, by connecting it to pre-existing knowledge structures. Some mnemonic techniques take advantage of the benefits of meaningful and organized encoding and supplement them by setting up an organized retrieval structure in which each retrieval cue is stored with a specific piece of information to be remembered. To be maximally effective, these cues must be memorable and have a good probability of reminding the individual of the target information

Mnemonics techniques have some positive non memory side effects, such as increasing motivation to study in one of the study students are reported on a survey that having acronyms on a review sheet made it easier for them to remember course content and made them start studying earlier. In other studies show that students think that some mnemonic techniques are easier, faster, more enjoyable, and more useful than note rehearsal, and that mnemonics can reduce examination anxiety. Although preliminary these results mesh with anecdotal reports about students enjoying the use of mnemonics, and suggest that mnemonics may have some additional motivational benefits that could increase their utility in educational contexts.

II.STATEMENT OF THE PROBLEM

A study to assess the effectiveness of

structured teaching programme regarding mnemonic's in enhancing the perceived memory among the first year of DGNM students in Maatarachandi institute of nursing at Rohtas, Bihar state.

III AIMS:

- To assess the pretest level of perceived memory among the DGNM students.
- To assess the effectiveness of structured teaching programme regarding mnemonics enhancing the perceived memory among the DGNM students.
- To find the association between pre - test level of perceived memory among the DGNM students with their selected socio-demographic variables.

IV.METHODS AND MATERIALS:

RESEARCH APPROACH:

Quantitative approach has been selected.

RESEARCH DESIGN:

Pre-experimental one group pre-test and post- test design was selected. there was manipulation of independent variable (Structured teaching programme)

O1 X O2

O1: Assessment of perceived memory regarding mnemonics among the first year of DGNM nursing students before structured teaching programme.

X: Structured teaching programme on mnemonics on enhancing perceived memory.

O2: Assessment of perceived memory regarding mnemonics among the first year of

DGNM nursing students after structured teaching programme.

VARIABLES:

Independent variable

Structured teaching programme.

Dependent variable

Mnemonics to enhance the perceived memory among college students.

SETTING OF THE STUDY:

The study was carried out in shersah medical research & training sansthan situated in Rohtas district, Bihar state. Apart from the academic curriculum music, sports, yoga and self-defense training like karate has also being taught to the students.

POPULATION:

Population in the Study forms all the nursing students studying in the college.

Target population: In this study target population comprise of college students studying in first year of DGNM nursing students respectively.

SAMPLING:

Sample

The samples for the present study were college students studying in first year of DGNM nursing students in Maa tarachandi institute of nursing at Rohtas district, Bihar state. Who meets the inclusion and exclusion criteria of the study.

Sample size

The sample size of 40 nursing students studying first year of DGNM in Maa tarachandi institute of nursing sansthan at rohtas, Bihar

state.

Sampling technique

Purposive sampling technique was used to select the sample for the present study.

SELECTION CRITERIA

The samples were selected based on the following criteria

Inclusion criteria

The study is limited to the college students, who

- are studying first year of DGNM nursing students.
- can able to understand, read and write Hindi and English
- are willing to participate in the study

Exclusion criteria:

The exclusion criteria are the subjects who

- are suffering from any diagnosable physical or mental disorder.
- are absent on the day of study.

Description of data collection instrument:

Tool consists of two parts.

Section I: Socio-Demographic data:- It consists of age, sex, religion, occupation of father, occupation of mother, family income, Education qualification, domicile, type of house and college students which subjects like more..

Section II : Multiple choice knowledge questionnaire :-It includes the items related to mnemonics from their subject of Nursing Foundations.

Scoring procedure:

There were 30 items pertaining to multiple choice knowledge questionnaire on mnemonics, chunking and mind mapping from their subject.

Each item has four options the score “one” was given to correct response and “zero” was given to wrong response. The maximum score was 30. The level of knowledge was categorized based on the percentage of score obtained.

Reliability:

Reliability of the tool was tested during pilot study. Cronbach’s alpha method was used to find out the reliability of the checklist method. The reliability (r) was found to be 0.86.

V. ANALYSIS AND INTERPRETATION OF DATA:

Analysis refers to the computation of certain measures along with searching for the pattern of relationship that exist among data groups.

Section-I: **Data on socio-demographic variables of college students.**

Section-II: **Data on comparison of pre- test and post – test level of perceived memory on mnemonics among college students.**

Section-III: **Data on mean, standard deviation and mean percentage of pre-test and post-test level of perceived memory among college students. Data on evaluate of structured teaching programme on mnemonics to enhance the perceived memory among college students.**

Section – IV: **Data on association between pretest level of perceived memory score with their selected socio-demographic variables.**

TABLE-I: SOCIO-DEMOGRAPHIC VARIABLES OF COLLEGE STUDENTS

S.NO	SOCIO-DEMOGRAPHIC VARIABLE	FREQUENCY	PERCENTAGE (%)
1.	Age		
	a) 18 years	36	90.0
	b) 19 years	3	7.5
2.	c) 20 years	1	2.5
	Sex	34	
	a) Male	6	85.0
3.	b) Female		15.0
	Religion		
	a) Hindu	33	82.5
4.	b) Muslim	5	12.5
	c) Christian	2	5.0
	Occupation of father		
	a) Unemployment	3	7.5
	b) Coolie	25	

5.	c) Government/Private employee	6	62.5
		6	15.0
	d) Business		15.0
6.	Occupation of mother	28	
	a) Unemployment	10	65.0
	b) Coolie	4	25.0
	c) Government/Private employee		10.0
	Family Income per month	9	
7.	a) Below Rs.10,000	15	22.5
	b) Rs 10,001-20,000	6	37.5
	c) Rs 20,001-30,000	10	15.0
	d) Above Rs 30,000		25.0
	Education Qualification	10	
8.	a) Illiterate	9	25.0
	b) Primary education	19	22.5
	c) Secondary education	2	47.5
	d) Diploma /degree		5.0
	Domicile	28	
9.	a) Rural	12	70.0
	b) Urban		30.0
	Type of house	3	
10.	a) Kacha house	25	7.5
	b) Pucca house	12	62.5
	c) Thatched house		30.0
	Which subject did you like more	21	
		18	52.5
		1	45.0
	a) Nursing foundations		2.5
	b) Psychology		
	c) Microbiology		

TABLE-2:COMPARISON OF PRE- TEST AND POST- TEST LEVEL OF PERCEIVED MEMORY ON MNEMONICS AMONG COLLEGE STUDENTS

S.No.	Level of perceived memory	Pre-test		Post-test	
		Frequency	%	Frequency	%
1	Inadequate	27	67.5	00	00
2	Moderate	13	32.5	7	17.5
3	Adequate	00	00	33	82.5
4	Total	40	100	40	100

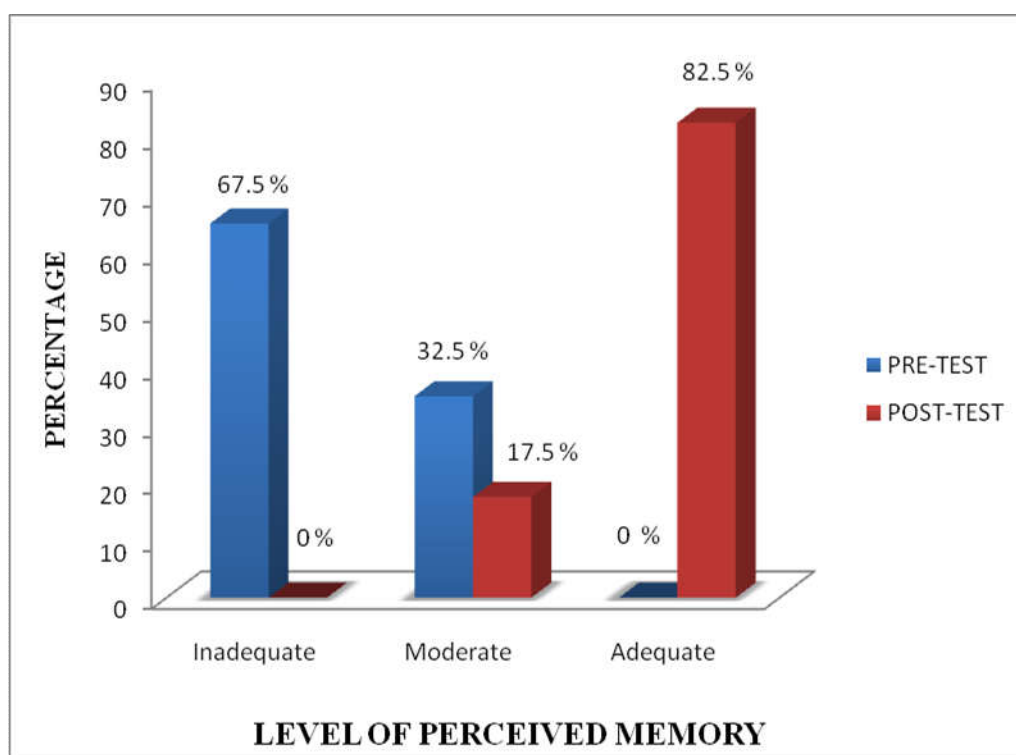


Figure.2: Comparison of pre- test and post- test level of perceived memory on mnemonics among college students

Table.2 shows that during pre-test 27(67.5%) of college students had inadequate level of perceived memory, 13(32.5%) had moderate level of perceived memory. Whereas during post-test 7(17.5%) of

college students had moderate level of perceived memory and 33(82.5%) of college students had adequate level of perceived memory.

TABLE-3:MEAN, STANDARD DEVIATION OF PRE-TEST AND POST-TEST LEVEL OF PERCEIVED MEMORY ON MNEMONICS AMONG COLLEGE STUDENTS

S.NO	Level of Perceived Memory	Mean	Standard Deviation
1	Pre-Test	9.68	2.749
2	Post-Test	23.18	2.754

Table-3 : Shows that Pre-test level of perceived memory, mean score was 9.68+ 2.749 (SD), whereas in post-test, the mean score was 23.18+2.754 (SD).

TABLE-4: DATA ON EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON MNEMONICS TO ENHANCING THE PERCEIVED MEMORY AMONG COLLEGE STUDENTS

S.No	Evaluate of structured teaching programme	Mean	Standard deviation	Standard error mean	't' Value	df	'P' Value	Significance
1.	PRETEST - POSTTEST	13.500	3.146	.497	27.140	39	.000*	Significant

*:-Significant at 5% ($p < 0.001$) level

Table.4 shows that data on evaluate of structures teaching programme on level of perceived memory on mnemonics among college students. Paired't' test was used and it reveals that difference observed between the value of pre-test and post-test

were true difference. Thus, it proves that the structured teaching programme regarding mnemonics to enhance the perceived memory among college students is effective at 5% ($p < 0.001$) level.

TABLE-5: DATA ON ASSOCIATION BETWEEN THE PRETEST LEVEL OF PERCEIVED MEMORY ON MNEMONICS AMONG COLLEGE SRUDENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

S.No	Demographic variables	Level Of Perceived Memory			Total	Chi-Square Value	df	“P” Value
		Inadequate	Moderate	Adequate				
1	Age	24	12	0	36	1.905	2	0.386 NS
	a) 18 years	1	2	0				
	b) 19 years	1	0	0				
	c) 20 years							
2	Sex				34	0.698	1	.403 NS
	a) Male	23	11	0				
3	Religion				33	0.293	2	.864 NS
	a) Hindu	22	11	0				
	b) Muslim	3	2	0				
	c) Christian	1	1	0				
4	Occupation of father				3	7.502	3	.050 S
	a) Unemployment	0	3	0				
	b) Coolie	19	6	0				
	c) Government/Private employee	3	3	0				
5	Occupation of mother				26	0.423	2	.810 NS
	a) Unemployment	16	10	0				
	b) Coolie	7	3	0				
	c) Government/Private employee	3	1	0				
6	Family Income per month				9	1.661	3	.646 NS
	a) Below Rs.10,000	7	2	0				
	b) Rs 10,001-	8	7	0				
		4	2	0				
		7	3	0	10			

	20,000 c) Rs 20,001- 30,000 d) Above Rs 30,000							
7	Education Qualification a) Illiterate b) Primary education c) Secondary education d) Diploma /degree	7 4 14 1	3 5 5 1	0 0 0 0	10 9 19 2	3.300	2	.192 NS
8	Domicile a) Rural b) Urban	17 9	11 3	0 0	28 12	.385	1	.311 NS
9	Type of house a) Kacha house b) Pucca house c) Thatched house	2 17 7	1 8 5	0 0 0	3 25 12	.337	2	.845 NS
10	Which subject did you like more a) Nursing foundations b) Psychology c) Microbiology	11 14 1	10 4 0	0 0 0	21 18 1	3.300	2	.192 NS

*:-significant at 5% ($P < 0.05$) level

Table 5; shows that frequency and chi square on pre-test level of perceived memory with their selected demographic variables, it's reveals that there is significant association found between pre-test level of perceived memory of college students with their occupation of father, at 5% ($p < 0.05$)

level. There is no association found between the other demographic variables such as age, sex, family income, religion, educational qualification of parents, domicile, occupation of mother, type of house and favorite subject.

VI. DISCUSSION:

The present study, shows that during pre-test 27(67.5%) of college students had inadequate level of perceived memory, 13(32.5%) had moderate level of perceived memory. Whereas during post-test 7(17.5%) of college students had moderate level of perceived memory and 33(82.5%) of college students had adequate level of perceived memory. Data on evaluate of structured teaching programme on level of perceived memory on mnemonics among college students. Paired 't' test was used and it reveals that difference observed between the value of pre-test and post-test were true difference. Thus, it proves that the structured teaching programme regarding mnemonics to enhance the perceived memory among college students is effective at 5% ($p < 0.001$) level. It's reveals that there is significant association found between pre-test level of perceived memory of college students with their occupation of father, at 5% ($p < 0.05$) level. There is no association found between the other demographic variables such as age, sex, family income, religion, educational qualification of parents, domicile, occupation of mother, type of house and favorite subject.

VII. CONCLUSION:

The aim of study was to find out the effectiveness of level knowledge on mnemonics among college students the structured teaching programme in improving the level of knowledge and practices.

BIBLIOGRAPHY:

1. Venkatesh Reddy A.N (2009). *Essentials of psychology for Nurses*, first edition, New Delhi, JAYPEE Publishers, page no:75
2. Basavanthappa BT (2010), *Psychology for Nursing*, first edition, New Delhi, JAYPEE publishers, page no 285
3. Basavanthappa BT (2007). *Nursing theories*. 3rd edition. New delhi: JAYPEE publication; page.147
4. Basavanthappa BT (2014). *Nursing research and statistics*. 3rd edition. New delhi: JAYPEE publication ;p.206
5. Clifford T. Morgan (2001). *Introduction to Psychology*, 2nd edition, New Delhi, Tata McGraw – Hill Publication, Page No, 184
6. Fernald/ Fernald (2018). *Introduction to psychology*, 5th edition, Delhi, A.I.T.B.S Publishers, page no, 250
7. Geri LoBiondo-wood and Judith haber.(2014). *Nursing research: methods and critical appraisal for evidence- based practice*. 8th edition. Missouri : elsevier publication;p.86
8. Clement I (2016). *Text book on Psychology*, first edition, New Delhi, Jaypee Publishers, page no, 250
9. Jacob Anthikad (2014). *Psychology for graduate nurses*, 5th edition, New Delhi, JAYPEE Publishers, page no, 261
10. Krishne Gowda (2017). *Essentials of Psychology*, first edition, New Delhi, CBS Publishers, page no 129

11. Mamita Dey (2016). *A guide to nursing research & biostatistics*, 1st edition, New Delhi, JAYPEE publication P (Ltd), New Delhi. Page no: 265-279.
12. Prakash P (2016), *Fundamentals of psychology for graduate nurses*, first edition, New Delhi, JAYPEE publishers, page no 78
13. Polit and beck (2012). *Essential of nursing research* .9th edition. New York: Lippincott publication; P.630, 702
14. Rajesh kumar (2018), *Basic psychology for Nurses*, first edition, new delhi, jaypee publishers, page no 103
15. R.Sreeani (2010). *Psychology for Nurses*, 2nd edition, New Delhi, JAYPEE Publishers, page no, 61
16. S.K.Mangal (2009). *General Psychology*, 5th print, New Delhi, sterling publishers, page no 202
17. Suresh K Sharma (2011). *Nursing research and statistics*. Haryana: Rajkamal electric press; p.76-84.
4. Matthew C. Davidson (2013). "Working Memory Performance across Development and Following Acute Exercise". *Sematic scholar*.
5. Katherinarajanu (2012). "Effectiveness of cinnamon chewing gum on memory and anxiety among adolescents at selected seventh day adventist high schools, Andhra Pradesh". *Sematic scholar*.
6. Basil V. Kuriakose (2019). "Effectiveness of visual images mnemonic training on memory among Alzheimer's disease patients". *International Journal of Advances in Nursing Management*.
7. Erin L. Whitescarver (2018). "Effectiveness of mnemonic devices on the acquisition and retention of social studies vocabulary by high school students with learning disabilities". *Rowan University*.
8. Mohd Nazri Latiff Azmi (2016). "Effectiveness of using mnemonic techniques in learning English vocabularies". *International Journal of Applied Linguistics & English Literature*.
9. Maghy S. J (2015). "Effectiveness of mnemonics in teaching mathematics". *International Journal of Modern Engineering Research*.
10. Miranda Yeoh (2015) Musical mnemonics to enable the student's recall of the processes involved in DNA replication; in English. *Research Gate*.
11. Dake Zhang (2012). "The effects of visual-chunking representation as a testing accommodation for improving students' geometry problem-solving performance".

JOURNAL REFERENCE

1. Diane Elizabeth Napier (2014). "Predicting Adolescents' Academic Achievement: The Contribution of Attention and Working Memory". *scholarcommons.usf.edu*.
2. Ritu Chandra (2017). "Influence of Intelligence and Gender on Academic Achievement of Secondary School Students". *RESEARCH gate*.
3. Maile Maria Blashill (2016). "Academic Stress and Working Memory in Elementary School Students". *University of Northern Colorado*.

Research Gate.

12. Fabien Mathy (2015) "SIMON game the main hypothesis was that the storage × processing interaction that can be induced by the chunking factor is an excellent indicator of intelligence because both working memory and intelligence depend on optimizing storage". *Research Gate*.
13. Harry Stokhof (2018) "Effectiveness of the scenario on student outcomes in terms of attainment of curricular objectives". *Springer link*.
14. Navdeep Dosanjh (2011). "Effects of three concept mapping learning strategies (concept identifying, proposition identifying, student generated) on urban middle school students' understanding of the circulatory system". *The University of San Francisco*.
15. Elaine Cockburn BA Hons (2011). "The ability of children to create mind maps and use them as planning tools for narrative writing". *Sematic scholar*.
16. Sabah Salman Sabbah (2015). "In response to the inability of the foundation-level students, who were learning English as a second language, to achieve the

general and specific goals of learning reading". *International Journal of Education and Development using Information and Communication Technology*.

NET REFERENCE:

1. <https://en.wikipedia.org/wiki/Memory>
2. <https://en.wikipedia.org/wiki/Mnemonic>
3. [https://en.wikipedia.org/wiki/Chunking_\(psychology\)](https://en.wikipedia.org/wiki/Chunking_(psychology))
4. https://en.wikipedia.org/wiki/Mind_map
5. <https://www.collinsdictionary.com/dictionary/english/schoolchildren>
6. <https://dictionary.cambridge.org/dictionary/english/schoolchildren>
7. <https://www.verywellhealth.com/memory-tip-1-keyword-mnemonics-98466>
8. <https://psychcentral.com/lib/memory-and-mnemonic-devices/>
9. <https://www.tntextbooks.in/p/9th-books.html>
10. https://www.youtube.com/watch?v=3_YyeBeYSA4
11. [https://en.wikipedia.org/wiki/Reflection_\(physics\)](https://en.wikipedia.org/wiki/Reflection_(physics))

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