

A Study to Compare the Effectiveness of Concept Mapping and Mind Mapping on Perception among B.Sc.,(N) Students in Selected College at Chennai

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ABSTRACT

Learning is the process of acquiring new understanding, knowledge, behaviours, skills, values, attitudes and preference. An experimental study was conducted to compare the effectiveness of concept mapping and mind mapping on perception among B.Sc. Nursing students at selected college. A true experimental research design was adopted for the study. The study was carried out with two groups that who fulfilled the inclusion criteria. A total of 60 samples in which 30 samples were allotted to group 1 and 30 samples were allotted to group 2 using simple random sampling technique. Modified Ingleton questionnaire was used to assess the level of perception regarding concept mapping and mind mapping. After pre-test, Group I received concept mapping as a teaching strategy and Group II received mind mapping as a teaching strategy daily for one week. Post test was conducted after one week with the same tool. The analysis revealed that, in Group-I, the mean level of perception had increased from 20 to 38 and standard deviation was decreased from 6 to 3. The paired-t test value of 15 was very highly significant at $p < 0.001$ which indicates the effectiveness of concept mapping on level of perception among B.Sc. Nursing students. In Group-II, the mean level of perception had increased from 19 to 40 and standard deviation was decreased from 7 to 4. The paired-t test value of 14 was very highly significant at $p < 0.001$ which indicates the effectiveness of mind mapping on level of perception among B.Sc. Nursing students. The Independent-t test value of 2.9031 was not significant at $p < 0.05$. It indicates that there was no significant difference between concept mapping and mind mapping on level of perception.

KEYWORDS: *Concept mapping, Mind mapping, Perception, B.Sc. Nursing students*

INTRODUCTION

Learning is the process of acquiring new understanding, knowledge, behaviours, skills, values, attitudes and preference. The traditional method of teaching occurs when a teacher direct students to learn through memorization and recitation techniques. In the new method of teaching the students can able to develop their critical thinking, problem solving and decision-making skills.

Concept map include cross connection between the concepts. It looks more doubtful and complicated. Concept maps are graphical tools for organizing and representing knowledge.

They include concepts, usually enclosed in circles or boxes of some type and relationship between concepts indicated by connecting line linking two concepts. Concept maps values both topics and connections.

Mind map is a visual thinking tool which maps out your thoughts and ideas in a brain friendly way using the techniques of radiant thinking. Mind map is a diagram used to usually organize information into a hierarchy, showing relationship among pieces of the whole. A mind map and a concept map learning strategy are two learning strategies that are often used to improve students learning achievements.

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STATEMENT OF PROBLEM:

A study to compare the effectiveness of concept mapping and mind mapping on perception among B.Sc. (N) students in selected college at Chennai.

OBJECTIVES:

1. To assess the level of perception among B.Sc. (N) students.
2. To assess the effectiveness of concept mapping and mind mapping on perception among B.Sc. (N) students.
3. To compare the effectiveness of concept mapping and mind mapping on perception among B.Sc. (N) students
4. To associate the post-test level of perception among B.Sc. (N) students with their selected demographic variables.

RESEARCH METHODOLOGY:

Quantitative research approach was adopted for the study. True experimental research design was selected. The study was conducted in Madha College of Nursing, Kundrathur, Chennai – 600069. The study was carried out with two groups that who fulfilled the inclusion criteria. A total of 60 samples in which 30 samples were allotted to group 1 and 30 samples were allotted to group 2 using simple random sampling technique. Modified Ingleton questionnaire was used to assess the level of perception regarding concept mapping and mind mapping. It consists of 12 questions, the responses were ranging from very poor to excellent using the 1 to 4 points scale.

The total score was interpreted as follows;

- Very poor - 1 to 12
- Poor - 13 to 24
- Good - 25 to 36
- Excellent - 37 to 48

After pre-test, Group I received concept mapping as a teaching strategy and Group II received mind mapping as a teaching strategy daily for one week. Post test was conducted after one week with the same tool.

RESULTS AND DISCUSSION:

The data obtained were analyzed using both descriptive and inferential statistics on the basis of objectives and hypothesis of the study.

The frequency and percentage distribution of demographic variables revealed that, in group-I with respect to the age of the student 21(70%) were in the age group of 20 years and 9(30%) were the age group of 21 years. According to the gender 7(23%) were males and 23(77%) were females. According to religion 22(73%) were Hindu, 2(7%) were Muslim and 6(20%) were Christian. According to type of schooling 9(30%) were government school students, 21(70%) were private school students. According to

experience in group activities 22(73%) were activity participated 8(27%) were not participated. According to interest in new learning method 26(87%) were curiously interested in new learning method. 4(13%) were not interested to learn new method.

In group-II with respect to the age of the student 18(60%) were in the age group of 20 years and 12(40%) were the age group of 21 years. According to the gender 5(17%) were males and 25(83%) were females. According to religion 16(54%) were Hindu, 1(3%) were Muslim and 13(43%) were Christian. When coming to type of schooling 15(50%) were government school students, 15(50%) were private school students. According to experience in group activities 27(90%) were actively participated in group activities, 3(10%) were not participated in group activity. According to interest in new learning method 29(97%) were interested to learn new method. 1(3%) was not interested to learn.

The result of the study has been based on objectives of the study.

The first objective was to assess the level of perception among B.Sc. Nursing students.

In Group I, with reference to the pretest level of perception 2(7%) had very poor perception, 22(73%) had poor perception, 4(13%) had good perception and 2(7%) had excellent perception in concept mapping. With regard to posttest level of perception in Group I most of the students 21(70%) had excellent perception, 9(30%) had good perception and none of them had very poor or poor perception in concept mapping.

In Group II, with reference to the pretest level of perception 6(20%) had very poor perception, 20(66%) had poor perception, 2(7%) had good perception and 2(7%) had excellent perception in mind mapping. With regard to posttest level of perception in Group II most of the students 25(83%) had excellent perception, 5(17%) had good perception and none of them had very poor or poor perception in mind mapping.

The second objective was to assess the effectiveness of concept mapping and mind mapping on perception among B.Sc Nursing students.

The analysis revealed that, in Group-I, the mean level of perception had increased from 20 to 38 and standard deviation was decreased from 6 to 3. The paired-t test value of 15 was very highly significant at $p < 0.001$ which indicates the effectiveness of concept mapping on level of perception among B.Sc. Nursing students. In Group-II, the mean level of perception had increased from 19 to 40 and standard deviation

was decreased from 7 to 4. The paired-t test value of 14 was very highly significant at $p < 0.001$ which

indicates the effectiveness of mind mapping on level of perception among B.Sc. Nursing students.

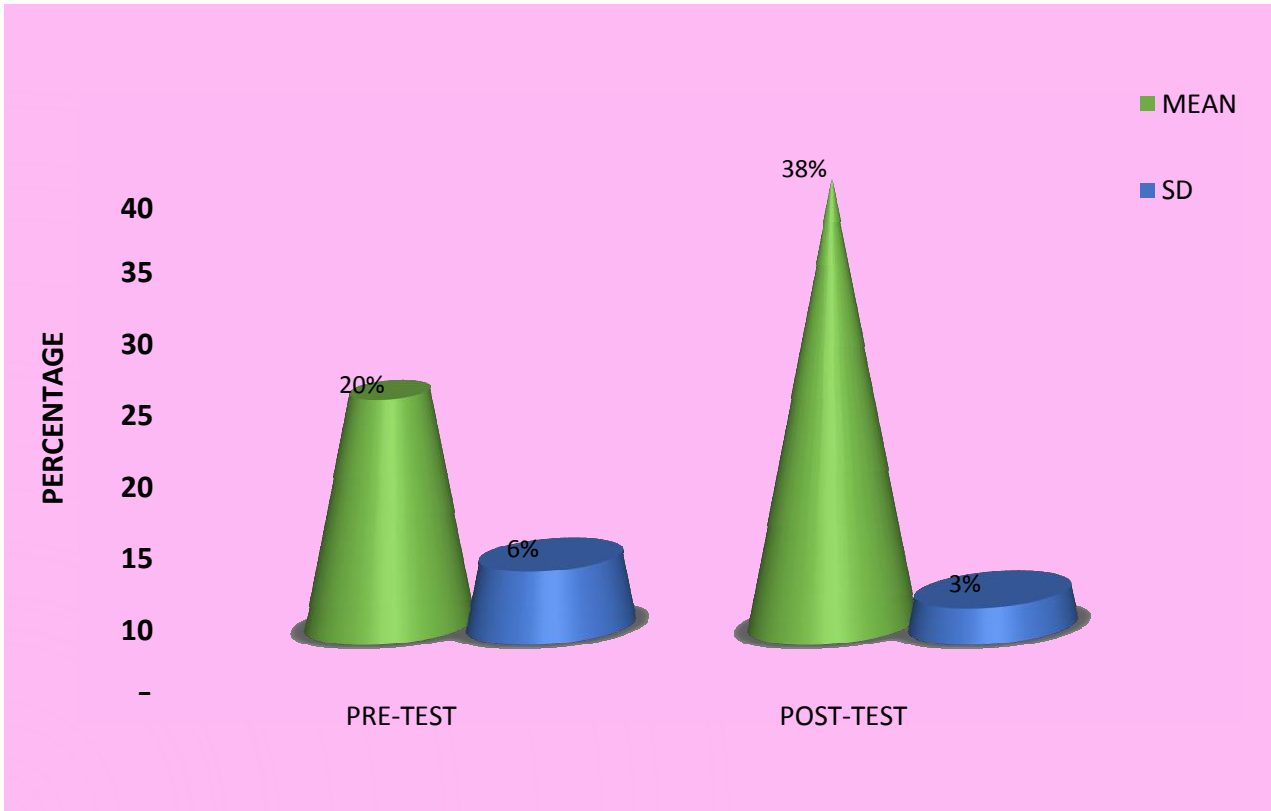


Fig.1: Comparison of mean and standard deviation between pre-test and post-test level of perception regarding concept mapping.

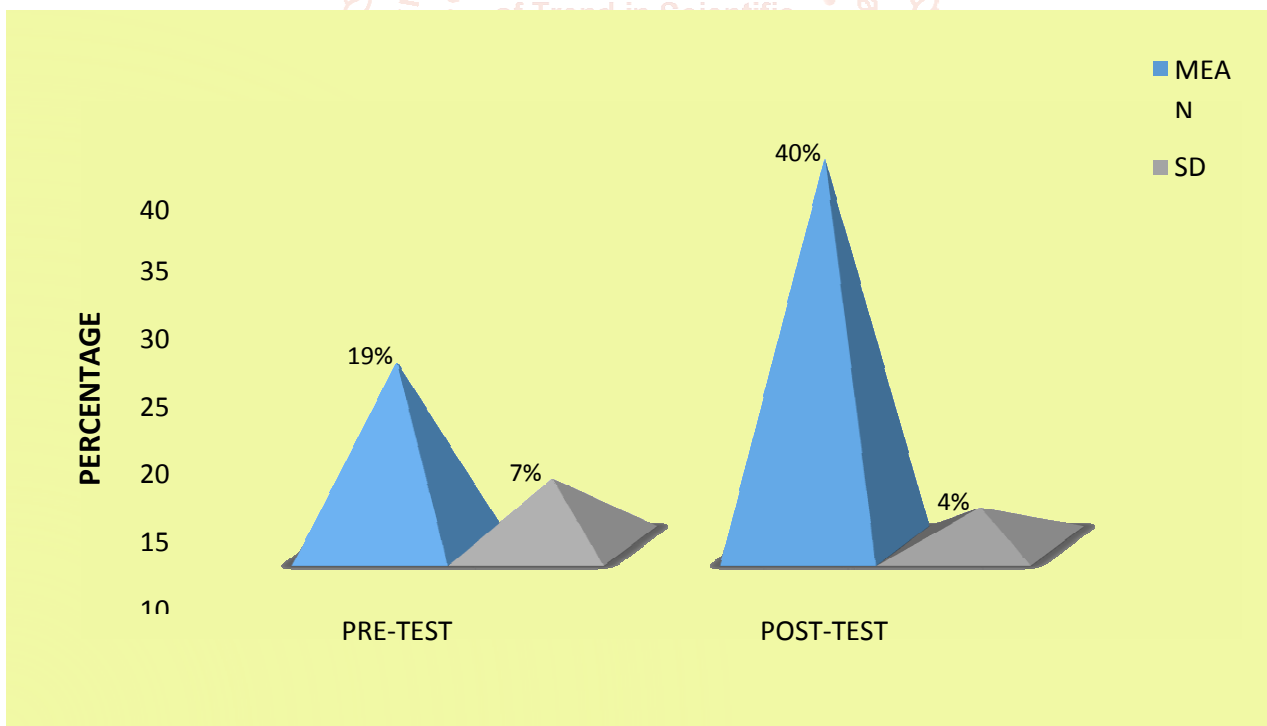


Fig.2: Comparison of mean and standard deviation between pre-test and post-test level of perception regarding mind mapping.

The third objective was to compare the effectiveness of concept mapping and mind mapping on perception among B.Sc. Nursing students.

The analysis revealed that, the posttest mean level of perception was 38 in Group I and 40 in Group II with the standard deviation of 3 in Group I and 4 in Group II. The Independent-t test value of 2.9031 was not significant at $p < 0.05$. It indicates that there was no significant difference between concept mapping and mind mapping on level of perception.

The fourth objectives was to associate the post-test level of perception with their selected demographic variable among B.Sc. nursing students.

The result shows that there is no significant association between the post-test level of perception on concept mapping and mind mapping with their demographic variables such as age, gender, religion, type of schooling, experience in group activities, Interest in new learning methods.

CONCLUSION:

This study was done to compare the level of perception regarding concept mapping and mind mapping among B.Sc. Nursing students. The result revealed that there was no significant difference between concept mapping and mind mapping on level of perception.

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