# EFFECTIVENESS OF MIND MAPPING FOR BLOCK BODY MECHANIC'S LEARNING OUTCOMES OF FIRST YEARS STUDENTS IN NURSING PROGRAM HANG TUAH HEALTH SCHOOL IN PEKANBARU 2013

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**Abstract**

Difficulty in focusing of concentrating or remembering can have an impact on the low achievement of learning outcomes. Mind mapping is the way to record creatively and effectively. It can make student happy and enjoy in learning process, in addition can enhance learning outcome. The method of this research used quasy experiment with static group comparison design. Sixty students were included in this research using purposive sampling, 30 students as comparison group and 30 others students as control group. Learning outcomes took from final score of Block Body Mechanic final test. The analysis used was frequency distribution for univariate and impaired T test for bivariate. Bivariate result showed that there is no differences between student who used mind mapping and student who did not use mind mapping technique (p value = 0.666). The suggestion of this study is student should choose appropriate method to enhance learning outcomes.

**Keywords**: mind mapping, student

## BACKGROUND

Nowadays, the developmental of human resources is needed to face the change of technology and knowledge. Higher levels of educations are believed to made better quality of human resources. Efforts to develop the human resources focused on the college level, with a higher level of understanding of the process is expected to be more developed and mature than previous education (Nursalam, 2011).

Student is a learner, who studies in the institution to enhance their knowledge and skill. Every student has their own learning styles. Several students like to learn and make several notes in learning process. Mind mapping is the way to note creatively and effectively. It can make student happy and enjoy in learning process, in addition it can enhance their learning outcome.

The development of education curriculum today demand to encourage students learning achievement. Several efforts to increase student achievement are always done by higher education institutions, including PSIK (Nursing School) STIKes Hang Tuah Pekanbaru. PSIK STIKes Hang Tuah Pekanbaru has tried a new curriculum (competency-based curriculum (CBC)) since 2012. Learning process consists of four years, and each semester consists of three blocks.

In 2013, PSIK STIKes Hang Tuah Pekanbaru have two classes for first semester, but the learning outcomes for 2 blocks before through which students show a very significant difference between class A and B as found in the table below.

Table 1. Learning outcomes of Block Basic Nursing and Block Personal Spiritual & Communication in 2013

| No | Learning Outcomes | Mean | Median | Modus | Min | Max |
|---|---|---|---|---|---|---|
| **1** | Block *Basic Nursing* | | | | | |
| | a. Class A | 40,6 | 39,7 | 49,5 | 18 | 60,5 |
| | b. Class B | 41 | 39,3 | 27 | 27 | 69 |
| **2** | Block *Personal Spiritual & Communication* | | | | | |
| | a. Class A | 56,1 | 56,7 | 68,4 | 16,7 | 73,4 |
| | b. Class B | 54,5 | 53,4 | 51,7 | 20 | 80 |

Survey result showed that many students not active in learning process. Several of them had difficulty in memorizing nursing concept, and they think it is hard to study nursing. Based on this problem, researcher interest to try mind mapping method in class A to know the effectiveness of mind mapping. Example of mind mapping in the picture below.

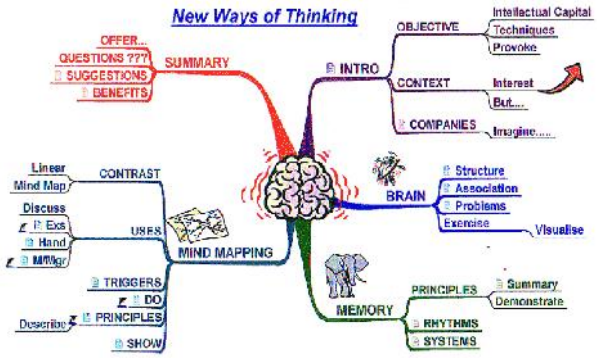


Fig 1. Mind Mapping

The purpose of this study is to identify the effectiveness of mind mapping for Blok Body Mechanic's learning outcomes. Mind mapping is a creative way of record, effective and literally will map the mind (Buzan, 2009). It can make students feel happy and not bored in the following subjects, and hence it can improve learning achievement (Wicoff, 2005).

## METHODS

The method of this research used quasy experiment with static group comparison design. The research was conducted from December to January 2013. Populations of the study are students PSIK STIKES Hang Tuah Pekanbaru. The study sample was 60 students by purposive sampling technique. There were 30 students in Class A as experiment group and another 30 students in class B as control group. Data collection tool was a final test of block body mechanics to measure learning outcomes. The analysis used was frequency

distribution for univariate and impaired T test for bivariate.

**RESULTS**

Total respondents of this research were 60 students. There was a difference between the average of learning outcomes in class A and Class B. Class A (25), with mind mapping methods, have higher average of learning outcomes than class B (22.5), without learning outcomes.

Table 2. Distribution of Learning Outcomes of Block Body Mechanic (n=60)

| No | Hasil Belajar | Mean | Median | Modus | Min | Max |
|---|---|---|---|---|---|---|
| **1** | Blok *body mechanic* | | | | | |
| | a. Class A | 51,4 | 50 | 45 | 25 | 80 |
| | b. Class B | 49,6 | 45 | 33,7 | 22,5 | 86,3 |

Table 3. Effectiveness of mind mapping for learning outcomes (n=60)

| Learning Outcomes | Mean | Standar Deviasi | Standar Error | p *value* |
|---|---|---|---|---|
| a. Class A | -1,75 | 14,3 | 2,6 | 0,666 |
| b. Class B | | 16,7 | 3,05 | |

Bivariate result showed that there is no differences between student who used mind mapping and student who did not use mind mapping technique (p value = 0.666).

**DISCUSSION**

Result of this study was different with Imaduddin & Utomo's study in 2012 which states of mind mapping was effective to increase student's learning outcomes in SMP Muhammadiyah 8 Yogyakarta. Nonetheless, there was increase of minimum score from previous block in experiment group (18 into 25).

According Alamsyah (2009) mind map is a graphical technique that can align learning with the natural workings of the brain. Mind map involves both sides of the brain (left and right), thus making the process fun and is the most effective and efficient way to enter, memorize and retrieve data from the brain. This implies that the information given would be easier and more reliable than using the traditional technique of note. The presence of colors, symbols, and shapes made the brain easier to absorb the information.

Probability of ineffectiveness of mind mapping for block Body Mechanic's learning outcomes is came from the several methods that has implemented in CBC. CBC has presented a variety of learning methods that enable the left and the right brain, such as small group discussion (SGD), role play, case study, discovery learning (DL), self-directed learning (SDL), cooperative learning (CL), project-based learning (PPA) and problem-based learning (PBL). CBC is the type of curriculum with student center learning (SCL), with a focus

on the achievement of competences. It means that this curriculum asked to the student to be active in learning process.

## CONCLUSION

CBC is the type curriculum that forces the student to be more active than conventional curriculum. Mind mapping can implemented when student make a note in learning process with their own style. Mind mapping methods can make student more interact and not bore when review their notes. And hence, student will be more understand and their learning outcomes will be enhance.

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