

The Correlation Of Learning Motivation Towards Academic Achievement Of Third Year Medical Students Using Pbl Approach

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ABSTRACT

Learning motivation is considered as one of factors for the success in accomplishing the learning process in the medical education therefore student can achieve a satisfactory result. This study aimed for analyzing the relationship of learning motivation towards academic achievement of third year medical students. This study involved 88 respondents who received a questionnaire on learning motivation. Data then were analyzed using independent t test. There is a significant correlation between learning motivation and academic achievement with mean differences of $3,5 \pm 3,42$ and t value of 1,024 (p: 0,309). In overall, there is a significant correlation between learning motivation towards academic achievement in the third year medical students.

Keywords: learning motivation, academic achievement.

INTRODUCTION

The changes in the medical education development from Teacher-Centered Learning (TCL) to Student-Centered Learning (SCL) has encouraged medical education institution to alter the the teaching learning strategi by implementing Problem Based Learning (PBL) approach. The drawback in the TCL strategy is that the lecturer is very influential in determining student learning. Lecturers are also very essential for controlling the student's learning process. This will make the students become inactive. Students tend to rely on the material that given by the teachers. This situation can cause the students less active in finding what they want to study in more depth.

In contrast, PBL strategy encourage students to be more active and students are more motivated.

Statement delivered by Yoshioka et al., (2005) which revealed that students tend to have a lot of problems in the process of adaptation of learning in PBL's learning environment which especially for students from high school who do not normally apply independent learning. Hence the students enrolled in the PBL approach is encouraged to be motivated and required to accomplish the learning process independently. As stated by Harden et al., (2005); Kusurkar R. A, Ten Cate Th. J., Vos C. M. P., (2012); Evans A. and Maiyo J.K.(2015) which revealed that students will have different motivations depending upon the subject matter.

The acceptance rate between accepted students and applied students in the faculty of medicine University of Muhammadiyah Surakarta is high which constitute 1: 12 for which students are expected can accomplish all the program in the medical education successfully. However; in reality; there is also an evidence that the final test scores of subject matter are less satisfactory. This problem is prompted by the author to see how the motivation of the third level medical students in the subject of Traumatology and whether there is correlation between learning motivation towards academic achievement of medical students in the subject of Traumatology. Researchers assume that higher motivation of students the higher academic achievement will be.



Therefore, understanding learning motivation as internal factor can certainly be used as a predictor for the success of the learning process in which student achievement is satisfactory. In addition, this factor can be influenced to be improved further.

The formulation of the problem in this research is that whether there is correlation of learning motivation towards academic achievement in the third year of medical student. The aim of this study is investigating the relationship between learning motivation and the academic achievement of medical students in the third year. This research is expected to benefit students in developing learning motivation for obtaining a better learning achievement. For the institutions from which the research results can be obtained information about learning motivation picture and its role in supporting the academic achievement of students.

Artist and Harris, (2007) expressed the factors that influence self learning that important for success in learning process including an understanding of the subject matter in advance (prior knowledge), independent learning skills, motivation to learn independently.

In addition, according to Rantenstrauch, (2001) cited by Bohne, Faltin, Wagner, (2002), stated that in order to be able to perform self learning, a student must have a competency of self-observation, self-reflection, self-judgment, making their own objective, doing reactivation of existing knowledge, managing learning autonomy (e.g.: time management), building learning motivation and concentration in learning autonomy to determine their own learning strategies and problem solving strategies, understanding when to seek a help from a friend or tutor.

METHODS

This research was a cross-sectional design with the dependent variable of learning achievement using values taken before the revision. Data of

independent variables including motivation and SDLR taken by distributing questionnaires. Quantitative research data were analyzed using descriptive statistics and inferential statistics. Descriptive statistics analysis were used to determine average value, standard deviation (SD), minimum and maximum values of the variables of the study. Inferential statistics are used to investigate the relationship of learning motivation to academic achievement. Relationship within the two variables was assessed using independent t test (Johnson & Christensen, 2008; Creswell, 1994; Sugiyono,2011).

Learning motivation measured using a questionnaire of the Questionnaire Motivated Strategies for Learning Questionnaire (MSLQ) developed by the National Center for Research to Improve Postsecondary Teaching and Learning, University of Michigan. Academic achievement data are taken from the value of subject Traumatology in the third year of academic year 2016.

The subjects were selected using purposive technical sampling of the third year students at the Faculty of Medicine, Universitas Muhammadiyah Surakarta in the academic year 2016. All subjects who meet the inclusion criteria of the third-year students must follow the subject of Traumatology, present at the time of the study and willing to be respondents. Exclusion criteria were the third year students who were not present at the time of the study and were not collecting questionnaires or filling questionnaires incomplete.

The data that collected in this study including primary data and secondary data. Primary data was taken by distributing questionnaires to students. The questionnaire used scales including Questionnaire Motivated Strategies for Learning Questionnaire (MSLQ) developed by the National Center for Research to Improve Postsecondary Teaching and Learning, University of Michigan (Suhoyo, 2008). Secondary data were drawn from the value of

third year medical students (the subject of Traumatology) at the academic administration of the Faculty of Medicine University of Muhammadiyah Surakarta.

Data analysis techniques used in this research is the analysis of quantitative data analysis consisted of descriptive statistics. Then, it will be followed by parametric test of independent t test. Descriptive statistical analysis aimed to investigate the average value, standard deviation (SD), minimum and maximum values of the

variables of the study (Johnson & Christensen, 2008; Sugiyono, 2011).

RESULTS AND DISCUSSION

Research investigation of the relationship between learning motivation and academic achievement by distributing questionnaires. Questionnaire on learning motivation given to third year students at the Faculty of Medicine of the academic year 2016. Furthermore, the data after analyzing process using SPSS Ver.23 obtained as follows:

Table 1. Distribution of learning motivation and academic achievement (n = 88)

Variable	Mean	Median	Mode	Minimum	Maximum
Learning motivation	95,32	93,5	91	42	126
Academic Achievement	56,93	55,93	55,86	37,71	80,95

Data that meeting the inclusion and exclusion criteria were as many as 88. The table above shows that the average student's academic achievement in the third level is constitute for 56,93. Learning motivation's average score is obtained by 95,32. The minimum value of the academic achievement of students on the subject of Traumatology is 37,71 while the maximum value student's achievement is 80,95. Minimum score of learning motivation is 42 while the

maximum score of learning motivation is 126. The average learning motivation score of third year medical student is considered in high level which constitute for 95,32 which could predict to higher academic achievement. It is a fact that the third year students have a high learning motivation as a force in the further study in medical school that has implemented PBL.

The data then analyzed using independent t test, the analyzes were drawn below :

Table 2. The differences of academic achievement on learning motivation (n = 88)

Variable	N	Mean	Mean differences	t cal	t table	p value
Learning motivation -Academic $\geq 55,92$	44	97,07	$3,5 \pm 3,42$	1,024	2,660	0,309
-Academic $< 55,92$	44	93,57				

Based on table 2 above, it is clearly known that there is mean differences of learning motivation on academic achievement which constitute for $3,5 \pm 3,42$. Furthermore, the t calculated is 1,024 which is less than t table of 2,660 that indicating that there is significant differences of SDLR based on academic achievement. This correlation also be supported from p value $< 0,5$

which account for 0,309 which means that there is a significant correlation of learning motivation in influencing student's learning achievement.

This correlation indicates that the higher the level of learning motivation, the higher the student achievement will be. The study is in line with Marcou, A. & Philippou, G.



(2005); Kan'an, A., & Osman K. (2015). Several results have also mentioned by Sunanto, (2006) which investigated the learning motivation, attitudes toward teachers, learning styles and learning achievement of Indonesian student. The results of this research also support what was said by Sunanto, 2006; Miflin BM, Campbell CB, Price DA. . (2000); Evans A. and Maiyo J.K.(2015) that determined the internal factors that can influence learning achievement are: intellectual psychological factors, which include the level of intelligence, motivation learning, attitudes feelings, interests, conditions due to the socio cultural or economic. Therefore, the motivation factor is an important factor in achieving better academic achievement. Similar study delivered by Marcou and Philippou (2005) that determined students' learning motivation with three factors including (a) self-efficacy, (b) task value, and (c) goal orientation. Aiming the study to achieve better result makes motivation is an essential influence on academic achievement.

CONCLUSION

Based on the research result, it is concluded that there is a significant correlation between learning motivation and academic achievement of third year medical students.

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