

Using problem-based learning in college: Mastery concepts subject statistical research and motivation

Ediansyah Ediansyah¹, Dwi Agus Kurniawan², Rahmat Perdana³, Salamah Salamah⁴

^{1,4}Department of Elementary Teaching and Education, Bengkulu Islamic Institute, Indonesia

^{2,3}Department of Physics Education, Universitas Jambi, Indonesia

Article Info

Article history:

Received Jun 22, 2019

Revised Jul 20, 2019

Accepted Aug 29, 2019

Keywords:

Learning motivation
Problem-based learning
The ability of research
statistical concept mastery

ABSTRACT

Based on the problems obtained, the ability of students to subjects of research statistics is still categorized as low until this causes them to be weak in completing their final assignments. Therefore, the researchers investigated how students' mastery of the research statistical concepts and their learning motivation using learning innovations, one of which was Problem Based Learning (PBL). This research was conducted at the Islamic Education School (PGMI) Islamic State Teacher Education Institute (IAIN) Bengkulu used was semester 8th students for a sample. The research method was quantitative with a sample of 145. The research instrument was using a motivation questionnaire and multiple choice questions. The results will then be analyzed using simple regression analysis which will be presented in the form of a data table.

Copyright © 2019 Institute of Advanced Engineering and Science.
All rights reserved.

Corresponding Author:

Dwi Agus Kurniawan,
Department of Physics Education
Universitas Jambi,
Lintas Jambi-Muaro Bulian Street KM. 15, 36361, Jambi, Indonesia
Email: dwiagus.k@unja.ac.id

1. INTRODUCTION

Educators play important role in education of the Republic of Indonesia Law number 20 of 2003, Educators are qualified teaching staff as teachers, lecturers, counselors, tutors, widyaiswara, tutors, instructors, facilitators and other name with their own specialty, and participating in education administration. In higher education, educators are lecturer [1]. Lecturers are professionals who are tasked with planning and implementing the learning process, assessing the results of learning, guiding and training, and conducting research and community service. This fact shows that major developments taking place in the field of education follow up on global progress and trends in teaching approaches [2]. The successful implementation of learning strategy depends of a lecturer in teaching students to use methods, techniques, and learning strategies to invite students receive learning material with fun. [3] States that each student has different abilities and characteristics so the teacher have to do variation in teaching. Especially for students of the Madrasah Ibtidaiyah Teacher Education educators who trigger student in critical thinking and concepts understanding. Therefore, today students only focused on theory without developing their mind.

Seeing the important role of lecturers in training students' thinking skills, a strategy is needed in static learning. Statistics are a way to learn about how students are confronted with building and interacting with statistical models, and integrated with data samples, probabilistic models, contexts and conclusions enhanced by technology [4]. This statistics course has an important role in life, according to [5] the statistics section is a necessity in solving contextual problems that are relevant to real life. However, in reality, at IAIN Bengkulu it is still difficult to understand the concept of statistics.

Seeing the students in statistical concepts can be seen in processing and analyzing data such as descriptive and inferential data. Descriptive statistics report trends and variations in data centers so they can