

THE ACHIEVEMENT AND INDEPENDENCE OF LEARNING BASED ON THE STUDENT ENTRY SELECTION TYPE AND PREVIOUS SCHOOL FACULTY OF ENGINEERING STATE UNIVERSITY OF PADANG

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Abstract

This research aimed to describe about learning achievement and learning independence based on recruitment and previous school to student study program of education bachelor degree, Faculty of Technique the State University of Padang. This research is ex-postfacto research which is do not manipulate the research variable. Research method used is descriptive of comparability. Hypothesis Analyze with MANOVA (Multivariate Analisis of Variance). The result of analysis describe, the learning achievement of student there are significant differences among the based on recruitment students, but there are not differences for learning independences the based on recruitment students. It indicates that the learning independences students is student education bachelor degree. Faculty of Technique the State University of Padang, year student input 2010 can be categorized high. Meanwhile for the differences of previous school, the learning achievement of students from vocational high school is higher than learning achievement non vocational high school. Also, the learning independence of students in vocational high school relatively higher similar with the learning independences students in non vocational high school.

Keywords: Achievements, Learning Independence, Entry Selection, Previous Schools

A. Introduction

The admission entry of new students at the university has a very strategic role. The acceptance must be able to accommodate the interests of colleges, high schools, and communities. Each graduate of the Senior High School has the same opportunity to proceed to the University through a variety of pathways to University admissions. The admission of new students must be selective. Therefore, the selection system is demanded to meet at least four aspects, namely: prediction effectiveness, efficiency, representativeness and incentives (Klitgaard, Suryabrata, 1986 and 1987).

Prediction Effectiveness means that the selection results can predict the success of students in the future. In the short term, it means the selected student from the selection result will show a good performance, and completed their education in the allotted time. In the long term, it means that University graduates would be able to work in the community.

Efficiency is closely related to the effectiveness of the prediction, but in terms of the economic aspects consideration namely whether or not between costs, worth the time and effort spent to make a careful selection system model with the amount of power to the selection model. Representativeness means that selection system to attract students from various social and groups. The system does not contain the bias is more giving opportunities for specific groups or social, and cornering the social or groups other than the possibility of elected by a system of selection.

Whereas the existing system means the incentives provide the stimulus for various parties to be more active in trying to make students able to transcend the system selection. Suryabrata (1989) suggests that in order for a selection system can achieve the target, the measuring instrument for selection must meet several requirements of a good measurement tool, namely the validity, reliability, standardization, brought, discrimination, comprehensive, and easy to use.

State University of Padang (UNP) as one of the institutions of higher education providers in Indonesia always try to realize the function of national education set forth in regulation No. Sisdiknas of 20 December 2003, namely to develop and shape the character of a nation's civilization and dignity in order to educate the lives and organizes educational process to generate power-educators who participated in building the country through educational.

Faculty of Engineering is part of the UNP provides participation in the national education. According to the policy since the year 2010 Engineering Faculty of State University of Padang (UNP-FT) has accepted new students through five line selection entry the path PMDK, SNPTN, Bidik Misi, Jalur Prestasi and Regular Mandiri. The author assumes that the student FT-UNP who successfully passed the selection of the five incoming lines above are students who have academic potential is quite good, because they are the good individuals who manage to hundreds of even thousands of other participant in the implementation of the entry selection.

It is expected the student accepted in FT-UNP is a good student and have achievement in academic, so that students can complete a study on time. However, the view of the author towards the acquisition of learning achievements of students who have been accepted and carried out a lecture during the two semesters in FT-UNP, they saw the acquisition of the learning achievement vary. There are students who obtained high achievement study (GPA) is high 3, 86

and some are getting very low 0.36 GPA, the striking difference is assume from the differences in the entry selection of the students.

Learning achievement is influenced by several factors. According to Slameto (2003: 56), the factors affecting learning achievement was divided into two, namely the internal factors and external factors. Internal factors are factors that affect the achievement of the learning that comes from within themselves, namely the physiological condition the form of the health condition, a state of senses, gestures, and psychological conditions which include intelligence, interest/willingness and motivation, while external factors are factors that influence the learning achievements come from outside yourself, i.e. the material factors studied, environmental factors, the instrumental factors, and the ability of teachers/educators.

In order to have a good performance for a student, he must continue learning. The learning process can take place with or without conscious awareness. It is also similar to the opinions expressed by Gagne (1989: 2) learning is a human disposition or capability that persists over a period of time and is not simply ascribable to processes of growth.

Student learning achievement of FT-UNP from the fifth line of the entry indicates the various results. The students who are accepted through the path PMDK and SNMPTN have better learning achievements. On the opposite, the students that are accepted through Regular Mandiri, has a relatively low learning achievements compared to the other lines.

The differences of the student's background of secondary education also affect the learning achievement. The authors view in the learning process was primarily areas of expertise (practice), students from SMK shows more relatively good achievement compared to student who comes from a non SMK.

But, in the theory class, the students from non SMK showed better performance. This is assumed because of the difference in the vision and mission of the high school. The difference is found in many aspects of the independence of learning, shown on characteristic, the way of learning and adaptability of academic and the environment.

In the learning process there are students who still depend on their friend during exam or while doing independent task. There are often students copying friend's work, low initiative seeking out reading materials, while in fact many sources that can be accessed, the discipline of learning students also low, this appeared to in the presence of a lecture on time and discipline during the learning process.

Therefore, the authors suspect there is a difference in student learning achievement and independence based on differences in the entrance selection (PMDK, SNMPTN, Bidik Misi, Jalur Prestasi, and Regular Mandiri and the difference of previous school (SMK and Non SMK).

B. Research Methods

The research method used is descriptive comparative research method that aims to compare the differences of a symptom or event. The population of this research is the entire student of Educational Program S-1 FT UNP 2010 that has attended a lecture for 3 semesters at the Engineering Faculty of UNP. The research Samples were determined by Stratified Proportional Random of 350 students that spread throughout the S1 Educational Program FT-UNP.

The source of the data in this study is a document report of the results of studies recap (LHS) student of S1 FT UNP Educational Program. Data collection techniques in the study used the method of documentation and question form. Question form is used to gather data about student learning independence. The question form developed from indicators of student learning independence.

Hypothesis testing in this study used MANOVA test (Multivariate Analysis of Variance). The purpose of this was to know the MANOVA testing is there difference learning achievements of students learning and independence of both groups of variables tested, the selection variable entry group (PMDK, SNMPTN, Bidik Misi, Jalur Prestasi, and Regular Mandiri) and the previous school variable group (SMK and Non SMK). The implementation of throughout this test used SPSS program assistance (Statistical Package for Social Seince) version 17.

C. Results and Discussion

1. Student Learning Achievement S1 Educational Program FT UNP

The results showed that there was a difference between learning achievements of students and learning independence based on the entry selection and previous schools on students S1 Educational Program FT UNP. It means the selection of entry admission and the difference of previous school influence to the learning achievements and level of learning independence of FT UNP student. The differences of students learning achievement based on entry line was seen at the results of Tukey Test where the comparison of the student learning achievement among the lines average showed significant differences.

General description of the average student achievement S1 Educational FT UNP 2010 based on selection entry as shown in the following figure:

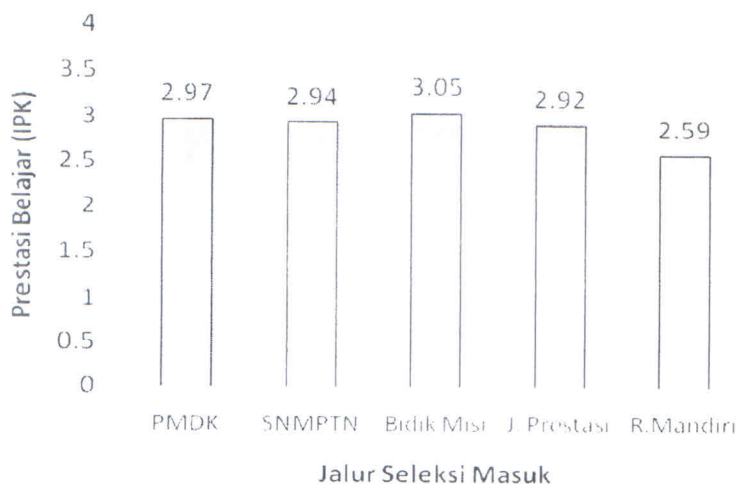


Figure 1. The average of student achievement based on entry line

Based on the picture above was seen that the average achievement student Educational program FT UNP 2010 sorted from the highest was the Bidik Misi of the average achievement of 3.05, next PMDK 2.97 SNMPTN 2.94, Jalur Prestasi 2.92 and the lowest was Reguler Mandiri with average achievement is 2.59.

Learning achievement based on the previous school also showed significant difference. Where the results of test-t showed significance smaller than 0.05 alpha ($0.008 < 0.005$), this means there is a significant difference in student learning achievements from the SMK with students coming from Non SMK. The student who comes from the SMK has achieves relatively better than students who come from non SMK. For more details descriptions of differences on learning achievement based on of the previous school as seen in the following image:

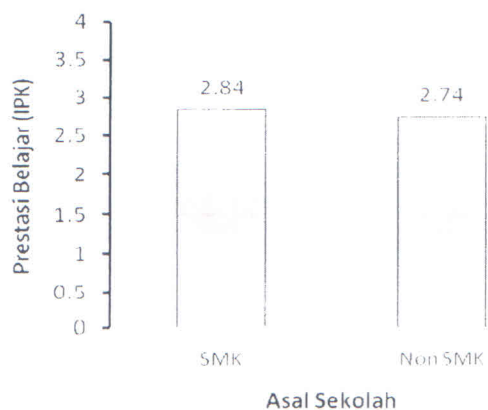


Figure 2. The average of student achievement based on the previous schools

Based on the above graph looks that gaining an average student achievement based on the previous school on students of S1 Educational Program FT UNP who came from SMK was 2.84 and the average student achievement from non SMK was 2.74. Thus, it can be said the average of student achievement that comes from SMK was higher than acquisition of learning achievements of students coming from non SMK.

The differences in learning achievement of students based on previous school were caused by difference in the vision and mission of the school. SMK is the subsystem of education that specifically assists students in preparing them to enter work employment. While Non SMK (SMA/MA) refer to the purpose of secondary education and give priority to the preparation of learners to continue to a higher level. But both the school groups have equal opportunities for continuing education to a higher level, as already done by all universities in Indonesia.

Based on the description it can be concluded that there was a difference of learning achievement of student Educational FT UNP 2010 either because of differences in selection or entry line and the difference of previous school. The differences in learning achievement is possible because there are a lot of factors, one of them is the psychology factors include internal factors and external factors and the factors that are present in each individuals.

Psychological factors are factors that principal so it can make it easier to achieve the learning objectives optimally so that indirectly learning achievements will also satisfied. Otherwise, once the psychological factors on individual less, then it will be able to become a barrier to learning process or even can bring difficulties in his studies.

The differences of learning achievement were also influenced by factors of intelligence. A student who has a high level of intelligence is capable of understanding the lecture and absorbing the material and relatively fast. With high intelligence, the assignments can be done with a satisfactory grade and on time. Students with low level of intelligence will find difficulty in absorbing the lecture material, so they tend to be frequently encountered a problem when they have tasks. The low level of intelligence influences on the ability to do the test well.

Based on the above description, can be obtained in conclusion there is a difference in student learning achievement based on entry lines and the previous school was also influenced by these factors that was interrelated to each other. A good learning achievements would be obtained if all of these factors can be fulfilled.

2. Student Learning Independence S1 Educational Program FT UNP

The student learning independence S1 Educational Program FT UNP 2010 both based on the entry selection and previous schools as measured by the questionnaire, showed the average level of learning independence is relatively high.

The high level of learning independence in this study was made possible by the student's level of awareness that has been felt able to appreciate them. With student status as an agent of change, they are demanding to be independent, and do the best for them. In general, the description of students learning independence S1 Educational program FT UNP, can be seen in the following graph:

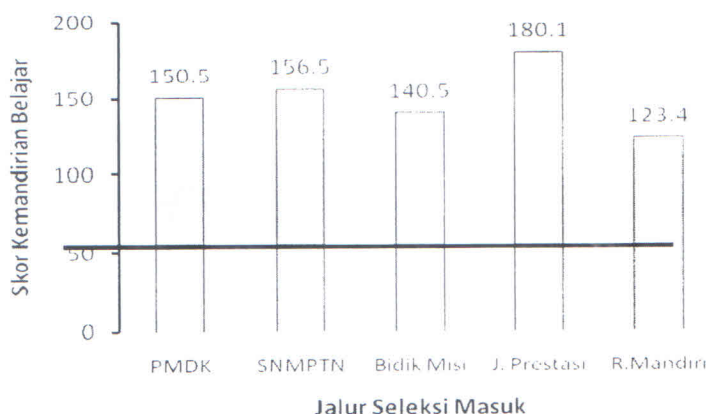


Figure 3. Score of the Student learning independence Based on Selection lines

Based on the picture above showed that the average score of student learning independence S1 Educational Program FT UNP 2010 sorted from the highest was Jalur Prestasi with independence score of 180.1, SNMPTN 156.5, PMDK 150.5, Bidik Misi 140.5 and the lowest was Reguler Mandiri with average score 123.4.

The analisis of t-test on the student learning independence based on previous school showed significant differences. Where the student learning independence that comes from SMK was higher student learning that comes from non-SMK. This is demonstrated by the score student learning independence from SMK students was higher than score learning independence students coming from non SMK. This is similar to the results of Pardjono research (2007) revealed there were differences in students learning independence of mechanical engineering FT UNY reviewed from the previous the school SMK and SMA. The student who comes from SMK showed higher student learning independence compare to students from SMA.

Furthermore, the score of student's independence which comes from SMK compare to Non SMK can be seen in the picture below:

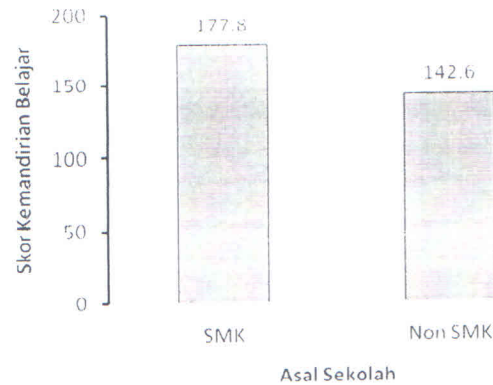


Figure 4. Score of student's independence based on the previous school

Based on the above picture it was seen that the gaining score average of student learning independence based on the previous to students educational program FT-UNP who came from SMK was 177,8 and an average score of students coming from non SMK is 142.6. Thus , it can be said the level of student's learning independence that come from higher SMK (vocational school) was higher in comparison with the level of students independence come from non-SMK.

The students are said to have a learning independent were students who partcipated actively about in determining what they willl study and how was the study. The students do not depend on the direction of the lecturer continuous support but students also have their creativity and initiative, as well as being able to work themselves by referring to the guidance acquired.

Independence is one of the important items possessed by students in teaching and learning because it is the indicator of learning achievement. Student who has independence in learning will show a good achievement. According to Entwistle (in Saputra, 2005) the academic performance improvement is achieved depends on the patterns of behaviour and independence of learning (self regulation learning). System and method of teaching began to the student center which students should be more active in the process of teaching and learning, and teachers as facilitators.

Efforts are made to build the student learning achievement are activities such as case studies, literature, research projects, and seminars are forms of activity that can provide opportunities to students for independent study individually and groups. If managed properly then these activities can provide an oppportunity to students to explore topics of interest. So indirectly the activities will build the independence of students in learning.

D. Conclusions and Suggestions

Conclusions

Based on the results of the research thus obtained conclusions as follows:

1. There is a difference between student's learning achievements and learning independence based on the entry selection in the S1 Educational Program FT UNP
2. There is a difference between student's learning achievements and learning independence based on previous school in the S1 Educational Program FT UNP
3. The learning achievements of students that come from SMK is higher than students from non SMK, also the level of SMK students learning independence is relatively higher than students learning independence from non SMK (SMA/MA and others).

Suggestions

Based on the above conclusions, the researchers would provide suggestions as follows:

1. FT UNP is expected to make it more selective in selecting a student candidate, so the accepted student really qualified and good students, so that the vision and mission of the faculty that has proclaimed may be achieved.
2. Student of S1 Educational Program FT-UNP is expected to always improve their learning achievement and build learning independence so they are able to complete the study on time with good the quality of achievement.
3. For the next researcher, it is recommended that the factors that influence the learning achievements are included as part of the research so that research results more objective.

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