

The Differences in Student's Grade Point Averages (GPA) Based on SBMPTN of UTBC and UTBK and External Motivation in Choosing PMIPA Majors of Tadulako University

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Abstract

This study aims to describe the differences in student's GPAs at the Mathematics and Natural Science Education (PMIPA) Department of Tadulako University who enter through the Joint Selection to Enter State Universities (SBMPTN) pathway with the print-based written test (UTBC) in 2018 and computer-based writing examination (UTBK) systems in 2019 and describe the relationship of external motivation of students in choosing majors with GPA based on the SBMPTN (UTBC and UTBK) pathway. The samples used were all students at the PMIPA Study Program of Tadulako University who entered through the UTBC SBMPTN pathway in 2018 as many as 134 students and 130 students of UTBK 2019. There is an insignificant difference in the student's GPA through the UTBC and UTBK SBMPTN pathways. The students of UTBK have a higher GPA in the second semester than the students of UTBC, with the average GPA of UTBC students being 3.407, and the average GPA of UTBK students being 3.525. There was no relationship between students' external motivation in choosing a major against students' GPA at the PMIPA department of Tadulako University, but factors of interest and self-will influence it.

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Introduction

Choosing a college major is the same as taking steps in the future, where students choose a major according to their interests and abilities. However, the fact is that new students do not always enter the department or study program based on their choices. The factor that affects students not entering the department of their choice is the lack of preparation for taking the SBMPTN exam so the scores obtained are not sufficient to enter the department that the student wants. Another factor that influences students to choose a major is the image of the university. The image of higher education is the overall impression or experience that a prospective student feels of a university, including educational facilities, the reputation of the college, and the quality of education such as; accreditation of colleges, faculties, and study programs contained in a university (Harahap et al., 2020).

The accuracy of students in completing their studies affects the university's accreditation where they study. The faster students adjust their studies

with a satisfactory GPA, the more they are interested in enrolling in universities with good accreditation (Claudya, 2017). A student's GPA is one of the student's benchmarks for the quality of knowledge. Three aspects affect students' GPA, namely cognitive aspects, effective aspects, psychomotor aspects, and two factors, namely internal and external (Syafi'i et al., 2018).

Students' decisions in choosing majors are based on careful consideration by considering various factors, namely parents, friends, personality, interests, school origins, university image, and job prospects. Parents are usually the determining factor in decision-making because parents provide input and become the party that finances college. Having friends who take the same department and university will influence decision-making. If there are friends, it will be easier to adapt to the new environment (Saputro 2017). The decision to choose a major is also influenced by interest and self-potential factors that positively affect choosing a major (Arif, 2018).

The process of selecting majors is not all based on one's desires, but on parents' wishes,

joining with friends, an outlet because they are not accepted at the State University or the desired department, and family economic factors. The amount of student motivation is determined by the interest of 62.41%, while other factors determine the remaining 37.59%. (Rizqiah, 2017).

The choice of majors based on interest has a significant effect on student learning outcomes. Student interest in lessons is low, so students will likely be lazy to study. If students do not study optimally, students learning outcomes are also not satisfactory, even though, according to Casuarina et al. (2017), interest in learning has nothing to do with students' GPAs. Interest will encourage students to take action and participation that they are interested in without any encouragement or coercion from others. Interest has a positive effect on student decisions in choosing a major (Sulistyawati et al., 2018).

Interest in learning will be optimal if there is motivation. The more specific the motivation given, the more successful the interest in learning will be. The higher the motivation to learn, the more interest in learning will increase. The lower the motivation to learn, the lower the interest in learning. The factors that cause motivation are divided into 2, namely internal factors and external factors. Extrinsic factors that affect student learning motivation by 8.26% are influenced by learning methods, 10.02% are influenced by the relationship between teachers and students, 10.20% are influenced by student-student relationships, 11.22% are influenced by school discipline, 8, 61% is influenced by learning tools, 10.93% is influenced by school time, 10.70% is influenced by learning standards above the size, 10.66% is influenced by the condition of the building, 10.20% is influenced by the curriculum, 9.21% is influenced by assignments home (Musab, et al., 2019).

The UTBC SBMPTN is a selection carried out by State Universities (PTN) together under the central committee's coordination with a selection based on the Print-Based Written Test results (UTBC) or using a computer. UTBC SBMPTN exam participants can choose one of the types of test exams provided by the government: computer and printed exams. Since 2019 there have been changes in the new student admission system in Indonesia. The admission system is managed by the Higher Education Entrance Test Institute (LTMP).

In 2018 Tadulako University accepted 10.284 students through SNMPTN as many as 1.545 students, SBMPTN as many as 4.362 students, and SMMPTN as 4651 students. Meanwhile, in 2019, implementing the first UTBK system in all State Universities (PTN). Tadulako University accepted 8.992 students, with the SNMPTN pathway's criteria as many as 1.099 students, SBMPTN 3.746 students, and SMMPTN as many as 4.147 students. In 2018 PMIPA students of Tadulako University entered through the SBMPTN UTBC 201 students, and in 2019 those who entered through the UTBK SBMPTN pathway were 213 students. Several researchers have examined the effect of the PTN admission selection system on student GPA acquisition. Meutia et al., (2019), who researched at Syiah Kuala University in the geography education study program, found that students who entered through the SNMPTN, SBMPTN, obtained the same GPA, namely the SBMPTN GPA an average of 2.9582 students while those who entered the SBMPTN GPA path. The average obtained was 2.9587. This research is in line with the research conducted by Napitupulu & Walanda (2017) in the Chemistry Education Study Program at the University of Tadulako regarding the relevance of the entrance to SNMPTN, SBMPTN, and SMMPTN, which stated that there was no relationship between entries points to the student's GPA. Both of these studies contradict research conducted by Lestari et al., (2018), which states that the GPA of students who enter the SBMPTN pathway is higher than students who enter the SNMPTN and SMMPTN pathways for Physics Education students at Universitas Negeri Makassar.

The research report above states that (1) the research department (study program) is influenced by internal and external motivation, which has an impact on the achievement of GPA (Pratiwi, 2017), (2) GPA acquisition is influenced by the PTN admission selection system, Lestari. et al. (2018), and (3) IPK acquisition is not influenced by the PTN entry system (Napitupulu & Walanda, 2017; Meutia et al., 2019). The three facts of the study's findings provide an overview of a contradictory description. This research analyzed students who passed the selection through the UTBC and UTBK systems on SBMPTN pathways in 2018 and 2019 to obtain GPA and external student motivation in choosing majors

Materials and Method

This research involves the students at the PMIPA Department of Tadulako University who enter through the UTBC SBMPTN pathway in 2018 and UTBK in 2019. This research sample was 264 students, where 134 students of UTBC SBMPTN and 130 students of UTBK. Description of the gender of the respondents used in this research were 202 female students and 62 male students. The data used in the study were the students' GPA in the second GPA and questionnaires consisting of 4 indicators, namely the education cost indicator, there were 6 statements, the study program image indicator contained 9 statements, the study program prospect indicators contained 6 statements, and the student decision indicators there were 7 statements which were distributed to students via a google form. Data were analyzed through the test of Mann-Whitney and Kendal Tau

Results and Discussion

The results obtain the students' GPA data of UTBC and UTBK SBMPTN. A description of the student's GPA of UTBC and UTBK can be seen in Table 1.

Table 1. Description of the student's GPA who enter through the UTBC and UTBK SBMPTN pathway.

Criteria	Students GPA	
	UTBC	UTBK
Mean	3.4078	3,5258
Std. Error of Mean	.04258	.02893
Median	3,5100	3,5850
Mode	3.51	3.59
Std. Deviation	.49295	.32985
Variance	.243	.109
Range	4.63	1.87
Minimum	.00	2.11
Maximum	4.63	3.98
Sum	453.25	458.36
N	134	130

Based on Table 1, an analysis of the student's GPA differences who enter through the UTBC and UTBK SBMPTN. The data on the results of the student's GPA difference test are presented in Table 2.

Based on the results of the statistical test output, it is known the value of Asymp.Sig. (2-tailed) of $0.003 < 0.005$, thus H_0 is rejected, and H_1 is accepted. There is an insignificant difference in the GPA of students entering through the UTBC and UTBK SBMPTN pathways.

Table 2. Mann-Whitney analysis test results.

Criteria	Semester 2 student
	GPA
Mann-Whitney U	6848.000
Wilcoxon W.	15893.000
Z	-3.003
Asymp. Sig. (2-tailed)	.003

The highest GPA average student who entered UTBK SBMPTN is 3.525, while the average GPA obtained by students who entered through the UTBC SBMPTN is 3.407. The factors that influence a student's GPA are (1) external factors, for example, environmental, cultural, and social factors, and (2) internal factors, for example, physical maturity, interest, and motivation (Mustafid et al., 2018).

The results of the research obtained are in line with Lestari et al., (2018). There are differences in the student's GPAs who enter through the SNMPTN, SBMPTN, and SMMPTN pathways. Students who enter through the SBMPTN pathway have the highest cum laude than students who enter through the SNMPTN and SMMPTN pathways. The process of selecting majors is not all based on one's desires, but on parents' wishes, joining with friends, an outlet because they are not accepted at the State University or the desired department, and family economic factors. The amount of student motivation is determined by the interest of 62.41%, while other factors determine the remaining 37.59%. One other factor that affects is the PTN entrance selection system, namely SNMPTN, SBMPTN, and SMMPTN (Rizqiah, 2017).

Changes in the college entrance examination system are influenced by technological developments that are very effective in facilitating the prospective data input process for students so that in the process of implementing the exam more effectively (Eriyani et al., 2020).

Table 3. Correlation test of external motivation against UTBC student GPA.

		Motivati on	GPA
Motivation	Correlation Coefficient	1.000	-.073
	Sig. (2-tailed)	.	.221
	N	134	134
GPA	Correlation coefficient	-.073	1.000
	Sig. (2-tailed)	.221	.
	N	134	134

The results of the test on the relationship of external motivation to the GPA of PMIPA students

are in Table 3 for UTBC students and Table 4 for UTBK students.

Table 4. Correlation test of external motivation against UTBK student GPA.

		Motivation	GPA
Motivation	Correlation Coefficient	1.000	-.093
	Sig. (2-tailed)	.	.126
	N	130	130
GPA	Correlation coefficient	-.093	1.000
	Sig. (2-tailed)	.126	.
	N	130	130

Based on the output of the test statistic is not there a relationship motivation of external students to choose majors against the CPI both forces in 2018 and 2019 with the value of the signature that was obtained, for the class of 2018 $0.221 > 0.05$ and workforce 2019 $0.126 > 0.05$. Shows that the decision external motivation of students in choosing majors has no effect on GPA in getting the students, while the factors that Affect IP K students are gender, majoring in school, the status of marriage, working, support for the elderly, and the liveliness of the organization (TL et al., 2017). The factors that affect students at PMIPA University Tadulako in choosing majors are in Figure 1 for UTBC students and Figure 2 for UTBK students.

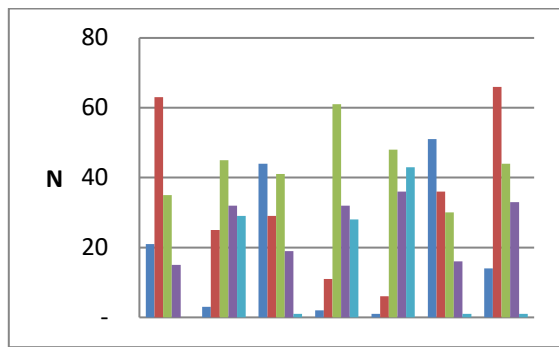


Figure 1. Student decisions with the UTBC system for choosing a major

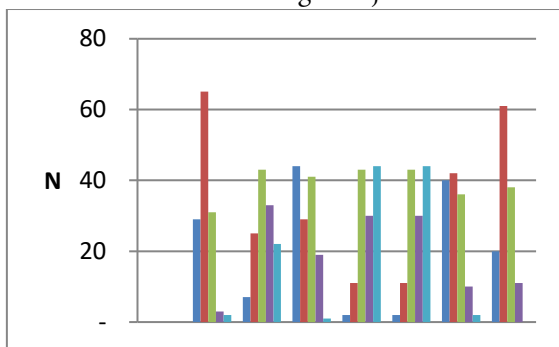


Figure 2. Student decisions with the UTBK system for choosing a major.

Judging from the results of the research Obtained majors PMIPA University Tadulako SBMPTN 2018 with system UTBC, 66 students chose to agree to continue the study P.MIPA Department due to interest students to pursue education PMIPA University Tadulako. Factor (1) that causes students continuing the studies in PMIPA University Tadulako who entered through SBMPTN UTBC that interest students in pursue education at P.MIPA Department with accomplishments that selecting statement 50% of the total number of respondents, and the factor of ability (value) of 134 the number of respondents in the study is 63 students chose aggregates weeks to continue the studies with Honors in PMIPA because of the ability (grades) students in following the SBMPTN exam 2018. value result exam SBMPTN which makes most of the students continue their education P.MIPA Department University Tadulako.

In line with the research that has been conducted by Sudarmono et al. (2018) which states that the factors that influence students in choosing majors in engineering computer and network are joy, interest, attention, interest, and involvement.

Factors that affect students PMIPA University Tadulako with system UTBC and UTBK in choosing majors items, namely: (1) based on ability (Grades) were Obtained at the time of follow SBMPTN (2) because of the desire of people of old, (3) because of the willingness of self alone and (4) because it is the first choice. Wiliana (2018) describes that factor family, the economy, and the willingness of self itself is a factor that affects themselves choosing a program of study.

In Tadulako University PMIPA students, in taking the SBMPTN exam, both the UTBC system and the UTBK system, almost 80% of students who enter the SBMPTN path do not take additional guidance. The results of the questionnaire were obtained together with the interviews that have been conducted for some PMIPA University Tadulako students which states that a student does not follow the guidance in facing the exam SBMPTN due to factors economy those parents who are not able to finance and, in a place, to stay that is not available where the conduct guidance to follow the SBMPTN exam. Students prepare themselves to follow the SBMPTN exam to learn independently (obtained from the Internet, a family that has been entered at high school, and information from friends of students).

Research that has been conducted at the PMIPA Department of Tadulako University has no relationship between external motivation in choosing a major to a student's GPA. However, the factors influencing students to choose the PMIPA Department of Tadulako University are interest and self-will. In line with research conducted by Arif (2018). Three factors influence students in choosing majors who are involved, the support of parents, and the potential for self or expertise possessed by students influential positive and significant impact on student's decision in choosing majors.

Conclusions

The results show an insignificant difference in the student's GPAs who enter through the UTBC and UTBK SBMPTN. It is indicated by the value of Asymp.Sig (2-tailed) of 0.003 < 0.005. The results showed no relationship between external student motivation in choosing a major against GPA in both 2018 and 2019. This was indicated by the sig value obtained, for UTBC students 0.221 > 0.05 and UTBK students 0.126 > 0.05.

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