Analysis of Differences in Student Achievement of Students IAIN Palopo Students by Entry Route Student

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Abstract

This study aims to test whether there are differences in student achievement at IAIN Palopo based on the entrance route. The research was conducted using quantitative methods by distributing questionnaires to 270 respondents. The data were analyzed using the Kruskal Wallis test to see whether or not there were group differences. The results of this study show that there is a significant difference in the learning achievement of IAIN Palopo students based on the entry path, namely between the SPAN and UMPTKIN pathways and the SPAN and Independent pathways. The SPAN entry pathway group ranks highest in learning achievement based on the entry pathway.

I. Introduction

IAIN Palopo is a State Islamic University located in the city of Palopo and is the only public university in the city of Palopo. This makes IAIN Palopo quite a lot of interest by high school graduates or the equivalent. Most of the participants came from alumni of schools located in districts/cities around Palopo, mainly 4 urban districts in the Luwu Raya area, namely East Luwu, North Luwu, Luwu, and Palopo Municipality. In addition, some registrants also came from outside Luwu Raya. Even some registrants came from outside the province of South Sulawesi. This number of enthusiasts means that not all prospective students who register are accepted to attend lectures at IAIN Palopo. Therefore, it is necessary to conduct a selection for prospective students so that they can be accepted at IAIN Palopo.

At PTKIN, especially IAIN Palopo, there are three entrances to being able to study at IAIN Palopo. The three entrances areSPAN line, line UM-PTKIN and independent path. The SPAN track is an invitational route where each school has the opportunity to register its best students to take part in the selection. Selection in this pathway is done based on the achievements achieved when they were in high school or the equivalent. For the second path, namely the pathUM-PTKIN is the selection to enter PTKIN through a written test conducted nationally. The last path is the independent path, this path provides the opportunity for each PTKIN to recruit independently.

In carrying out the recruitment, the campus needs to map the level of achievement based on certain groups which can then be used as a basis for policy making.According to the background stated, the formulation of the problem raised in this study is Is there a significant difference in student learning achievement based on the student entry path?

II. Review of Literature

2.1 Relevant Past Research Studies

There are several previous studies that have examined differences in learning achievement, here is a list of relevant studies.

a. Research conducted by Opic T. Etc., which compares the achievements of students who enter through different Entrance Paths. From this study, it was found that the highest achievement was achieved by students who entered through the SPMB route compared to the other two pathways, namely the PPA path and the local exam route. It was further explained that the reason for this was because students who entered through the SPMB route went through very tight competition.

b. Research conducted by Priyougie et al., who examined the achievements of Banjarmasin State Polytechnic students, especially accounting majors. From the several entry pathways in the Accounting study program, there were no differences in student achievement. This gives an explanation that the student entrance route has no effect on student learning achievement

c. Research conducted by mohamad Idris, who examined the differences in student achievement in the Informatics Engineering study program at the Sumatra Institute of Technology based on the type of admission selection followed. This research resulted in the conclusion there are differences in student achievement when viewed from the type of selection that was passed.

d. Research conducted by Fara Himmah which examines differences in learning achievement between students from high school majors, gender, entry path, and regional origin. significant and simultaneous influence between high school majors, gender and entry pathways on student achievement, but there is no significant effect of regional origin on student learning achievement

e. Research conducted by Mohammad Farhan Qudratullah who examines the influence of student admissions and school origins on student achievement at the Faculty of Science and Technology UIN Sunan Kalijaga. This study obtained the results that the results showed that: (1) the admission route had an effect on student achievement, where the achievement of students who were accepted through the external route was better than the internal route, (2) the origin of the school affected student achievement where the achievement of students who came from high school /K is better than MA/P, and (3) there is no interaction between these two factors in influencing student achievement.

f. Research conducted by Edy Widayat et al examined the differences in early mathematical abilities, differences in learning motivation, differences in achievement index (IP) of students from Java and outside Java. This study obtained the results that the results showed that: (1) 1) There were differences in students' initial abilities between those from Java and outside Java (2) There were differences in student learning motivation between those from Java and outside Java and (3) There were differences student achievement index between those from Java and outside Java (4) There is an influence of initial ability, learning motivation, and regional origin on the achievement index of students of the Mathematics Education Study Program, Faculty of Teacher Training and Education, Dr. Soetomo class of 2016/2017.

2.2 Theory Study
a. Learning Achievement

The origin of the word "Achievement" is "Pretatie" which is Dutch. This word is absorbed into Indonesian into 'achievement' which means effort. The word achievement is used in various fields which means skills, abilities, and attitudes to solve problems.

Poerwanto (2007) defines learning achievement as "the results obtained by a person in the learning process carried out and recorded in the report card." In line with that Winkel (1997) states that "learning achievement is the weight achieved which is evidence of ability and success in learning in the learning process. learning activities" Furthermore, Nasution, S (1987) said that learning achievement is "perfection that can be obtained by someone in thinking, doing, feeling, so that learning achievement is perfect, it must meet 3 aspects, namely: cognitive, psychomotor, and affective. If it does not reach the target of the three criteria, then the achievement is considered less

According to Azwar (2006) learning achievement can be shown through predicate indicators of success, report cards, achievement index, graduation rates, etc. Thus, learning achievement includes 3 aspects, namely affective, cognitive, and psychomotor, not only knowledge aspects, and is manifested in the form of values/numbers that indicate an achievement. Student learning achievement is the result of an assessment of the activities of learning activities that have been carried out and is a form of the final formulation given by the lecturer to see to what extent the student's abilities are expressed in the form of symbols, letters or sentences that can reflect the results that have been achieved. Student achievement can be measured by the value of the Grade Point Average (GPA) for students (Scale: 0.00-4.00). (farhan qudratullah) Achievement is an indicator of intelligence and student absorption that is used in formulating, making decisions and issuing policies related to students, education or institutions where learning is carried out (Hamdu, 2011).

From the various opinions above, it can be concluded that learning achievement is the result obtained by students after going through the learning process and affective, cognitive, and psychomotor assessments which are poured in the form of values in the form of numbers, symbols, and other forms.

b. Evaluation

Assessment is the interpretation of the measurement results from the learning process undertaken. Process evaluation identifies program objectives whether they have been achieved or not. Evaluation is used to provide value. The results of the evaluation are in the form of values in the form of numbers (quantitative) or words (qualitative).

c. Education Statistics

According to Astuti et al (2019) Education is an obligation of every human being that must be pursued to hold responsibilities and try to produce progress in knowledge and experience for the lives of every individual. Education is one of the efforts to improve the ability of human intelligence, thus he is able to improve the quality of his life (Saleh and Mujahiddin, 2020). Education is expected to be able to answer all the challenges of the times and be able to foster national generations, so that people become reliable and of high quality, with strong characteristics, clear identities and able to deal with current and future problems (Azhar, 2018). Educational statistics is a science that discusses or studies and develops principles, methods and procedures used in collecting, compiling and analyzing information in the form of numbers regarding everything related to education, drawing conclusions, making predictions and scientific estimates based on data collections in the form of numbers (sudijono, 2017).

III. Research Method

3.1 Research Types and Design

This type of research is quantitative research to see differences in student achievement at IAIN Palopo based on the entrance selection path, namely the SPAN pathway, the path UM-PTKIN and the Independent route as well as the student's school of origin.

3.2 Research Time and Place

This research is planned to be carried out in May-September at IAIN Palopo.

3.3 Population and Sample

In this study, the population used was IAIN Palopo students who were active in 2021. From this population the researchers took samples consisting of three groups, namely the SPAN group, the UM-PTKINand independent path. The sampling method used in this study is incidental purposive sampling, namely the sampling process carried out by taking into account the sample criteria needed in the study. The number of samples used in this study were 270 people taken from three groups of entry points

3.4 Data Collection Technique

In this study, researchers used primary data that we took from how to distribute questionnaires to students. The questionnaire that was distributed consisted of several questions including data on GPA, regional origin, entry route, origin of the faculty. Questionnaires were distributed using the help of google forms, by distributing them to students to be filled out online. Before processing the data, the researcher checks the completeness of the existing data, after the required data is complete, it will continue to process the data according to research needs.

3.5 Data Analysis

In this study the data will be analyzed using the ANOVA test. This test was carried out to prove the null hypothesis (H 0) "There is no significant difference in student achievement at IAIN Palopo based on the SPAN path, the UM-PTKINand independent paths. Direct conclusions are drawn if the ANOVA test does not find a significant difference or accepts the null hypothesis. Meanwhile, if the results of the ANOVA test show a difference or in other words reject the null hypothesis, the research will continue with further testing. Before the ANOVA test was carried out, the researchers ensured that the data to be tested was normally distributed and homogeneous. The Kolmogorov-Smirnov test was used to test for normality, while the Levene test was used to test for homogeneity. If the assumption of normality is not met, the writer uses the Kruskal Wallis test which has almost the same function as the ANOVA test.

IV. Results and Discussion

4.1 Results
a. Data Description

Based on the entrance route, the 270 students sampled in this study were divided into 61 people from the SPAN pathway, 117 people from the UMPTKIN pathway, and the Mandiri route consisting of 92 people. The number and percentage of samples can be seen in the following table.

Table 1. Entrance Route

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	span	61	22.6	22.6	22.6
	Umptkin	117	43.3	43.3	65.9
	independent	92	34.1	34.1	100.0
	Total	270	100.0	100.0	

The collected sample data is then processed by looking at the description of the existing sample data. From the description of this data, we can see the average data, median maximum value, minimum value, standard deviation and others.

Based on the entry group, the data obtained are as follows: the average GPA for SPAN is 3.581; for UMPTKIN 3,424; while for the independent path the average GPA value is 3.46. For other data descriptions, see the following table

Table 2. Descriptives

	entrance			Statistics	Std. Error
ipk	span	mean		3.5811	,02437
		95% Confidence Interval for Mean	Lower Bound	3.5324	
			Upper Bound	3.6299	
		5% Trimmed Mean		3.5953	
		median		3,6000	
		Variance		,036	
		Std. Deviation		,19031	
		Minimum		2.56	
		Maximum		3.95	
		Range		1.39	
		Interquartile Range		,14	
		Skewness		-2,634	,306
		Kurtosis		13,449	,604
	Umptkin	mean		3.4244	,03348
		95% Confidence Interval for Mean	Lower Bound	3.3580	
			Upper Bound	3.4907	
		5% Trimmed Mean		3.4696	
		median		3,5000	
		Variance		,131	
		Std. Deviation		,36214	
		Minimum		1.34	
		Maximum		4.00	

	Range	2.66	
	Interquartile Range	,25	
	Skewness	-2.861	,224
	Kurtosis	11.505	,444
independent	mean	3.4676	0.03080
	95% Confidence Interval for Mean — Lower Bound	3.4064	
	95% Confidence Interval for Mean — Upper Bound	3.5288	
	5% Trimmed Mean	3.4997	
	median	3.5150	
	Variance	,087	
	Std. Deviation	,29541	
	Minimum	1.50	
	Maximum	3.80	
	Range	2.30	
	Interquartile Range	,21	
	Skewness	-3.742	,251
	Kurtosis	21,603	,498

b. Data Analysis

1. Normality test

Before conducting the difference test, a normality test was first carried out which then became the basis for determining what difference test was used. If the data is normally distributed, the test used is a parametric statistical test, namely the ANOVA test, while if the data is not normal, a non-parametric statistical test will be used. The results of the data normality test can be seen from the following table:

Table 3. Tests of Normality

entrance	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
span	,187	61	,000	,786	61	,000
Umptkin	,214	117	,000	,739	117	,000
independent	,205	92	,000	,697	92	,000

From the table above, it can be seen that the significance value for the Kolmogorof-Simirnov test shows a value smaller than 0.05 which indicates that the existing data is not normally distributed. The next step is to transform the data if possible to make the data normally distributed. After transforming the data and testing for normality, it turns out that the data is still not normally distributed. Since the data is not normally distributed, the parametric statistical test which requires the normality of the data cannot be used so that the data test is shifted to nonparametric statistical tests.

2. Differential Test (Kruskal Wallis)

The statistical hypothesis in this test is;

H0: there is no significant difference in student achievement at IAIN Palopo based on the Entrance Path

H1: There is a significant difference in student achievement at IAIN Palopo based on the Entrance Path

Hypothesis Test Summary

|	Null Hypothesis	Test	Sig.	Decision
1	The distribution of ipk is the same across categories of jalur_masuk.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Based on the Kruskal Wallis test carried out, the significance value obtained was 0.000 or very small and smaller than the alpha value set at 0.05 so that the decision he took was to reject H0 or accept H1 which means there are differences in student achievement based on the entrance route traversed. Because there are differences, further tests are carried out to find out which paths are significantly different.

3. Further Testing

The further test that was carried out was pair-wire comparison or comparing groups in pairs between the 3 existing groups. From the results of the further tests carried out, it can be seen that a significant difference occurred when comparing the SPAN-UMPTKIN and SPAN-Independent entrances, while in the UMPTKIN comparison -independent there is no significant difference. The following are the test results using the help of the SPSS software:

Pairwise Comparisons of jalur_masuk

span
169,45

umptkin
122,43
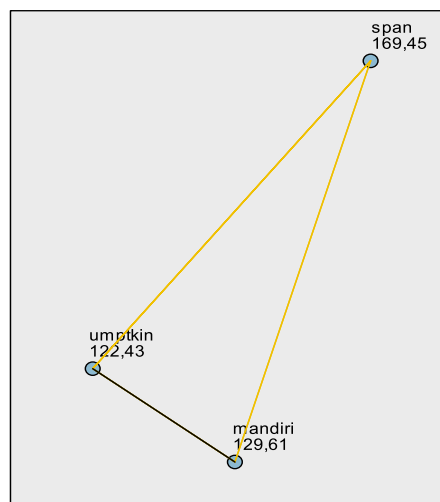
mandiri
129,61

Each node shows the sample average rank of jalur_masuk.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
umptkin-mandiri	-7,177	10,878	-,660	,509	1,000
umptkin-span	47,019	12,329	3,814	,000	,000
mandiri-span	39,842	12,890	3,091	,002	,006

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

4.2 Discussion

In testing student learning achievement based on the entrance route, there were significant differences between the 3 groups. In the entry pathway group. Based on further tests carried out, it was found that the difference only occurred in the SPAN group when compared to the other two groups. Meanwhile, in the UMPTKIN and UM-Mandiri groups, there was no significant difference. The results of this study also show that for IAIN Palopo students the best achievements were obtained by students who came from the SPAN entrance route.

This result is in line with the reality that students who graduate through the SPAN route are the best students from various schools. Because the input is a choice, the learning outcomes obtained at college are better when compared to other students. Meanwhile, students who enter through the UMPTKIN and UM Mandiri pathways are usually students who have not previously been declared as having not passed the SPAN pathway so they have to take another entry route. These results are slightly different from those of Priyogie et al. Which concludes that there is no difference in the learning achievement of Poliban students based on the student entry path from the SPMB entry route. This difference may be due to the characteristics of students in each campus or region can be different

V. Conclusion

The conclusion from the results of the study is that there is a significant difference in the learning achievement of IAIN Palopo students based on the entrance route. The SPAN entry pathway group ranks highest in learning achievement based on the entry pathway.

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