

# THE EFFECT OF ONLINE TUTORIAL ACTIVITY ON' FINALVALUE OF PDGK4104 COURSE AT UNIVERSITAS TERBUKA

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## **Abstract**

This research is designed to know the effect of online tutorial participant among the student achievement of PDGK4104 course on primary Teacher Education at Faculty of Teaching and Edukation Universitas Terbuka. The hypothesis of this research shows the influence level of student participation in online tutorial among student achievement. This research constitute by quantitative descriptive. The population in this research are online tutorial participants of PDGK4104 Class P1. Class P6 and P7 at the time of registration 2015.2. Sampling technique using purposive sampling. Online tutorial activity data consist of participating (X1) task value (X2). And discussion value (X3) which is obtained from tutorial report of PDGK4104 at the time of registration 2015.2 final value (Y) obtained from Test center Office- LPBAUSI Universitas Terbuka. Total of 62 students were used in this research. Data is processed by multiple regression so that obtained regression equation.  $Y = 0.3999 + 0.027 X_1 + 0.024 X_2 + 0.024 X_3$ . From the results of this research can be concluded that participant discussion and tutorial online task are influential on student achievement.

Keywords: Study Achievement Activity online tutorial

## **1. INTRODUCTION**

Open Education, by its very nature, refers to an education practice that demonstrates openness in the learning implementation that involves the students, learning media, learning sources and learning methods. Such open platform typically applies life-long learning that provides the students with broad learning opportunities throughout life with the flexibility of time and space (Estimuwarni, 2013). Farisi (2012) conceptualizes Open Education based on two aspects – institutional and personal aspects. On an institutional basis, Open Education separates teacher and student in space and possibly in time through multimedia and multiple sources. On a personal basis, Open Education enables students to learn at their own pace and determine the course loads according to their preferences.

Open Education typically offers learning support services where students have access to the materials, resources, registration, learning processes and learning outcomes. In general, learning support services refer to any support for students' learning experience (Belawati, 2000). At Universitas Terbuka (UT), the learning services come up with similar goals – accommodating student interactions with learning materials and through numerous group activities as well as fostering tutor-student interactions with tutorial modules. The utilization of learning resources and guided learning with instructional approaches in turn encourage optimal self-directed learning environment for satisfactory learning outcomes (Budiwati, 2007).

As an integral part of the learning support services at UT, online tutorials come with two modes – face-to-face tutorials and long-distance tutorials. While the former have students attend on-campus classes at specific times and days, the latter strictly depend on such media as radio, television, Internet and correspondences through which students undertake the tutorial experience (Adnan & Padmo, 2009). Face-to-face tutorials may require learning with computers and probably softwares, but long-distance tutorials entail a greater deal of technology.

Online tutorials, also known as tuton, provide access to tutorials to students who are unable to attend a scheduled in-person tutorial session. Oftentimes, such students take up online tutorials owing to scheduling conflicts and travel time and cost. UT sees this as a better fit than campus-based tutorials, which has the potential to take tutorial experience to a greater progress (Adnan & Padmo, 2009). The students must ensure they meet the tutorial requirements as online tutorials contribute 30% to final course grades (Universitas Terbuka, 2015).

PDGK4104 (Perspective of Elementary Education) is offered in a course packet in semester 1 in Elementary Teacher Education program of study, Faculty of Education and Science, Universitas Terbuka. A mandatory face-to-face tutorial is not assigned in this course; students must instead sign up for online tutorials that offer greater flexibility and opportunity to achieve the same quality education as face-to-face tutorials.

However, while the total number of students in Basic Education Program (Pendas) is relatively high, the rate of student participation in online tutorials remains low. For example, only 42 students registered in PDGK4104 in 2015.1 were reported to have completed initiation and assignments. The same pattern can be seen in PDGK4206 (Elementary Mathematics Education) where only 33 out of 172 registered students attended the initiation and completed their assignments. These results suggest that a great number of students did not strongly feel that they needed tutorials and that tutorials devoted to particular courses did not seem to attain the desired effect.

This study was intended to measure the effect of the rate of student participation in online tutorials on the final course grades in PDGK4104, PGSD, FKIP-UT. Results in this study extended prior work in highlighting the role of online tutorials in students' academic achievements. The results suggest essential implications as the correlation between students' tutorial drawbacks and impaired academic achievements has grown stronger over time, both because students who have poor involvement in online tutorial fail to meet the standardized final scores and because the demands for sustained participation elevate as students proceed to the subsequent semesters. Such correlation will be important to pursue in the approaching researches.

## **2. RESEARCH METHOD**

### **2.1 Research Approach**

Quantitative-descriptive design was used to measure the effect of online tutorials on student academic achievements in PDGK4104, PGSD, FKIP-UT.

### **2.2 Research Hypothesis**

This study aimed to test whether the rate of student participation in online tutorials enhanced student academic achievements in PDGK4104, PGSD, FKIP-UT.

### **2.3 Research Variables**

The research variables were students' learning achievements and the rate of students' participation in online tutorials, which consisted of understanding the initiation, being engaged in discussion and completing assignments in week 3, 5 and 7.

### **2.4 Population and Sample**

The population included students in online tutorials for PDGK4104 class P1, P6 and P7 during 2015.2. Purposive sampling was used to sample the students who participated in at least two of the total

assessed activities, which were assignment, engagement and discussion. Of all the students enrolled in the online tutorials for PDGK4104, 62 students were eligible samples.

### 2.5 Method of Data Collection

The data was collected using probability-incidental sampling, which identified the whole students of PDGK4104 class P1, P6 and P7 during 2015.2. The data included the three activities in online tutorials – engagement, discussion and assignment. The data of learning achievements was obtained from Universitas Terbuka Testing Center.

### 2.6 Data Analysis

The data above were processed using multiple regression with the following equation:

$$Y = X_0 + b_1X_1 + b_2X_2 + b_3X_3$$

Where:

- Y = Learning achievements
- X1 = Engagement in Online Tutorials
- X2 = Discussion Scores
- X3 = Assignment Scores

## 3. RESULTS AND DISCUSSION

### 3.1 Results

The following tables represent the analysis results which would be analyzed in Discussion.

#### 3.1.1 Analysis of Respondents' Descriptions about Final Grades

Of the 62 students who attended online tutorials for PDGK4104, 15 students (24.2%) earned scores 1.00; 27 students (43.5%) earned 2.00; 14 students (22.6%) earned 3.00; and 6 students (9.7%) earned 4.00.

**Table 1. Data of Final Grades (Y)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	15	24.2	24.2	24.2
2.00	27	43.5	43.5	67.7
3.00	14	22.6	22.6	90.3
4.00	6	9.7	9.7	100.0
Total	62	100.0	100.0	

Source: Primary data, processed in 2016

#### 3.1.2 Analysis of Respondents' Descriptions about Engagement

In terms of student engagement, 53 students (85.5%) earned scores 0–19 and 9 students (14.5%) earned 20–39.

**Table 2. Data of Engagement (X1)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 - 19	53	85.5	85.5	85.5
20 - 39	9	14.5	14.5	100.0
Total	62	100.0	100.0	

Source: Primary data, processed in 2016

### 3.1.3 Analysis of Respondents' Descriptions about Discussion Scores

In terms of students' discussion scores, 50 students (80.6%) earned 0–19 and 12 students (19.4%) earned 20–39.

**Table 3. Data of Discussion Scores (X2)**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 - 19	50	80.6	80.6	80.6
20 - 39	12	19.4	19.4	100.0
Total	62	100.0	100.0	

Source: Primary data, processed in 2016

### 3.1.4 . Analysis Of Respondents' Descriptions about Assignment Scores

In terms of students' assignment scores, 15 students (24.2%) earned scores 0–19; 8 students (12.9%) earned 20–39; 11 students (17.7%) earned 40–59; 13 students (21.0%) earned 60–79; and 15 students (24.2%) earned 80–100.

**Table 4. Data of Assignment Scores**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 - 19	15	24.2	24.2	24.2
20 - 39	8	12.9	12.9	37.1
40 - 59	11	17.7	17.7	54.8
60 - 79	13	21.0	21.0	75.8
80 - 100	15	24.2	24.2	100.0
Total	62	100.0	100.0	

Source: Primary data, processed in 2016

### 3.1.5 The effect Between Variables

Multiple linear regression was used to measure the effect of engagement, discussion scores and assignment scores on the learning achievements. The following results were obtained from the data analysis using SPSS 19.0:

**Table 5. The Output of Multiple Regression**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.399	.218		1.832	.072
	Engagement (X1)	.027	.013	.167	2.122	.038
	Discussion Scores (X2)	.024	.008	.244	3.058	.003
	Assignment Scores (X3)	.023	.002	.781	9.878	.000

a. Dependent Variable: Final Grades (Y)

**Source: Primary data, processed in 2016**

The analysis came up with regression equation:  $Y = 0.399 + 0.027 X_1 + 0.024 X_2 + 0.024 X_3$ , which indicates that engagement, discussion scores and assignment scores had positive effects on the learning achievements.

**3.1.6 Partial T-Test**

Based on Table 5, the t-test reveals that:

- $T_{cal.}$  of engagement (X1) toward the learning achievements (Y) is 2.122 with significance value of 0.038, which indicates a significant t-value (less than 0.05). As such, X1 had a significant effect on Y.
- $T_{cal.}$  of discussion scores (X2) toward the learning achievements (Y) is 3.058 with significance value of 0.003, which indicates a significant t-value (less than 0.05). As such, X2 had a significant effect on Y.
- $T_{cal.}$  of assignment scores (X3) toward the learning achievements (Y) is 9.878 with significance value of 0.000, which indicates a significant t-value (less than 0.05). As such, X3 had a significant effect on Y.

**3.1.7 Simultaneous F-Test (Anova<sup>b</sup>)**

F-test evaluates either whether the independent variables could explain the dependent variable or the independent variables had significant effects on the dependent variable simultaneously. Anova table below reveals the effects of the independent variables (engagement, discussion scores and assignment scores) on the dependent variable (learning achievements) as a whole.

**Table 6. The Output of F-Test**

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.219	3	11.073	36.022	.000 <sup>a</sup>
	Residual	17.829	58	.307		
	Total	51.048	61			

a. Predictors: (Constant), Assignment Scores (X3), Engagement (X1), Discussion Scores (X2)

b. Dependent Variable: Final Grades (Y)

**Source: Primary data, processed in 2016**

The model above generated  $F_{cal.}$  of 36.022 with a significance value of 0.000 (less than 0.05), which is likely classified as meaningful predictors. As a whole, engagement, discussion scores and assignment scores had significant effects on the learning achievements.

Finally, the *hypothesis* that the rate of student participation in online tutorials had a positive and significant effect on students' academic achievements in PDGK4104, Elementary Teacher Education, Faculty of Education and Science Universitas Terbuka was **accepted**.

### 3.1.8 Coefficient of Determination (R Square)

The degree of correlation of engagement, discussion scores, assignment scores and learning achievements as a whole (or simultaneously) was identified by the square of simultaneous correlation coefficient, also known as R, in Table 7.

**Table 7. The Output of Simultaneous Correlation**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.807 <sup>a</sup>	.651	.633	.55444

a. Predictors: (Constant), Assignment Scores (X3), Engagement (X1), Discussion Scores (X2)

**Source: Primary data, processed in 2016**

The simultaneous correlation coefficient is 0.807 with R square of 0.651. As a whole, each of the predictors had a moderate degree of correlation. In other words, the degree of the effects of engagement, discussion scores and assignment scores on the learning achievements defined by the simultaneous correlation coefficient ( $R^2$ ) was able to account for 65.1% of the learning achievements. The remaining 34.9% accounted for other factors not included in this model.

### 3.2. Discussion

A positive and significant effect, both partial and simultaneous, of the student participation in online tutorials on the academic achievements was evident in the multiple regression model. Engagement, discussion scores and assignment scores were all significant factors in predicting the students' academic achievements. Specifically, as the rate of the student participation in online tutorials increased, the drawbacks associated with the academic achievements lessened.

Results from the analysis of students' descriptions indicate that the majority of students' engagement and discussion scores were low. Of the 62 students, the highest percentage of engagement was 85.5% that comprised 52 students on a 0–19 score scale. This percentage was slightly higher than that of discussion scores which generated 80.6% that made up 50 students on a similar scale. It is

also worth noting that the highest percentage of assignment scores stood at 24.2% (15 students) both on 0–19 and 80–100.

As previously mentioned, students need to score above 30% both on the online tutorials and final examinations (UAS) to help boost UAS scores. In other words, the scores of online tutorials can affect those of UAS unless they go below 30% (Haryanto, 2014). To that end, students must meet all the tutorial obligations – initiation (engagement), discussion and assignment. Each of the categories makes up a different contribution to the scores of online tutorials; initiation, discussion and assignment are worth 20%, 30% and 50%, respectively.

Myriad factors were found to have resulted in the low participation of students in the online tutorials. Budiwati (2007) points out students' access to and skills in technology-based learning, students' responses to tutors in discussions, tutorial management and Internet availability in the learning setting as to why students can or cannot fully participate in such tutorials. Lee (2014), in addition, claims that the students' satisfactions from the tutorial experience were closely related to comprehensible assignment guidelines, plain rubrics, constructive feedbacks and tutors' subject-matter expertise.

#### **4. CONCLUSION AND SUGGESTIONS**

##### **4.1 Conclusion**

The results that both partial t-value and simultaneous f-value were less than 0.05 suggest that the combination of achievements in online tutorials and those in UAS is likely to substantially promote gain in academic feat. The correlation between online tutorials and academic feat has become obvious since students who fail to perform well in the online tutorials will not meet the required learning outcomes. This will get worse as the academic demands increase in the subsequent semesters.

##### **4.2 Suggestions**

Results from this study also support the need to develop propositions as to how the student participation in online tutorials can be enhanced.

1. Universitas Terbuka needs to provide tutors with a range of professional training and development aimed at optimal student academic feat.
2. Additional researches on the development of online tutorials are necessary to pursue as this study, though promising results have been reported, has yet to cover all of the domains in such area.

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