

ONLINE TUTORIAL INFLUENCE ON LEARNING OUTCOMES OF BACHELOR PROGRAM STUDENTS OF PHYSICAL EDUCATION FKIP-UT ON THERMODYNAMICS SUBJECTS (PEFI4208)

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Abstract

Abstract: The purpose of this study was the effect of online tutorials on learning outcomes of Bachelor Program students of Physical Education FKIP-UT on thermodynamics subjects (PEFI4208). The sample were Bachelor of Physical Education students who follow online tutorials. Online tutorial activities carried out by 8 times initiation or 8 weeks with 3 tutorial task which given to the 3, 5 and 7 initiation. In an online tutorial, students are expected to actively carry out the activation of at least 40 times and do 3 tutorials and following the discussion actively. The data were analyzed using multiple linear regression analysis. The results of the research are influence of relevance of student activities follow online tutorials with learning outcomes of student who follow PEFI4208 final exam. (1) Activities of students in an online tutorial have a significant influence on its readiness to follow the PEFI4208 final exam; (2) The effect of student's online tutorials PEFI4208 with final exams result is 11.6%. (3) the estimation curve if p -value less than 0.05 linear model, it can be said that the assumption of linearity have been met.

Keyword: Bachelor of Phisycs Education, PEFI4208, online tutorial, final exams

Preliminary

UT University held a long distance education, in accordance with Law No. 20 of 2003 Section 31 of the National Education System (www.hukumonline.com) can be held on all channels, levels and types of education. Thus, through the long distance system, education can be held with high flexibility, both in selecting or entering the program, as well as the completion of the program (*multi entry-multi exit*). This means, participant education at UT can do *learning by doing* and if they want it can be registered as a student throughout their life according to their ability and time owned funds. UT characteristics as an institution of long distance education is an unique advantage that is not owned by an ordinary University.

The education system is characterized by the separation distance between the manager (UT), lecturer (authors, teaching materials and tutor) and the student. The process of higher education and long distance students who have worked and are spread in all the regions of Indonesia can enhance the capabilities and skills without distance, space and time (Suparman, 2001). Learning materials at the UT University is a learning resource as a substitute lecturer functions, developed by experts in various fields and technicians in producing teaching materials. Teaching materials are developed, produced, distributed and used with reference to the theory, principles, procedures and relevant guidelines and guidelines that are specially prepared. These facilities would be very limited interaction in the learning oriented to lecturers or tutors, so that interaction takes place almost entirely in one direction, that of lecturers to students. In this kind of learning, lecturer in control of learning so that what is presented is more information or orders rather than in the form of facilitation that allows students to appreciate the initiative in the learning process. But with the occurrence of a fundamental change in the new paradigm of education, from *teacher-centered* to be *student-centered*. As revealed in a new paradigm of higher education, the quality and quantity of facilitation which allows optimal student involvement in learning is a necessity. During this time the teacher / lecturer is better known as a source of information, Profesional educators and scientists with the main task of transforming, developing and disseminating science, technology and the arts through education, research and community service (Wikipedia). So in learning that is focused on students, teachers / lecturers more of a role as a facilitator that works to create the conditions that allow students to learn, either with or without his presence. Service online learning, students require computer literacy, in addition to having access to the internet. Therefore, online learning services can only be used by students who meet these requirements. Without both of these

requirements online learning services can not be utilized by students. Services that can be provided include academic service and non academic. Through a web-based internet, students can access the various services provided by the manager (UT). Teaching materials developed at the UT University as an institution of long distance education is a major thing that most considered quality. The transformation of teaching material according to curriculum development, the times and the results of research carried out every five years. This research can be carried out by experts in science, the teaching materials, the author of a module or study program managers, so expect the teaching materials developed can be more perfect with no errors and in accordance with the curriculum and the development of the times.

Physical education students are students who have become Junior and Senior High School teachers. Therefore, changes in the curriculum that applies nationally will change the system of teaching which did by the teachers in front of the class. PEFI4208 teaching materials can be used by the student as stock material in physics teaching in junior high school and in high school. Students also need to know the development of Thermodynamics and enrichment also given lectures in an online tutorial on PEFI4208 Thermodynamics. PEFI4208 teaching materials that will also change based on the curriculum and the development of the times. The results of this study are expected to provide good input for the development of teaching materials PEFI4208 in future development or supplements. Input means is input from the users that students who study this module to achieve a bachelor's degree and for their future. To study the modules can be done in various ways either by reading, discussing with a friend or a tutor, as well as using the internet in an online tutorial (Tuton). Initiation developed by the tutors are expected in addition to providing materials module can also motivate students to diligently read and study modules and provide reinforcement for students who study independently. Learning is an educational component which is a very big role in achieving educational goals. Therefore, the quality of education is often linked to the quality of learning. High quality of learning that is assumed will produce high quality education as well. Although there are still a lot of disagreement about the term learning, seems to be agreed that learning occurs in interaction between students with learning resources. Learning resources can be teachers / lecturers, library, people (informants), the Internet, and other sources relevant to the area being studied. So that there is interaction between students with learning resources, there must be facilitated, which enables students to interact in a focused and effective. In terms of learning activities in question are tutorials online, then that becomes the problem in this research is the influence of online tutorials by students with final exams score and the objectives are (1) how the activity of students in the online tutorial has a significant influence on its readiness to follow final exams; (2) how the influence of students' online tutorials to the score of final exams is 11.6%. (3) how the results of the estimation curve if we got a linear model p-value less than 0.05, it can be said that the assumption of linearity have been met.

Literature

Online Tutorial

Globalization on the one side and on the other centralized impact of various changes in all areas of life, not least changes occurring in the field of learning. In the field of learning is considered as a vehicle to prepare the human resources (HR) is able to control and exploit the changes caused by globalization and the decentralization. A society that is constantly changing demands of learning at a higher level and should be able to cope with the changes. The changes are not only the quantity but more important is the quality of learning. In this case the UT University (UT) as the organizer of Long Distance Education University can serve the learning process of students with various modes such as face to face tutorials, independent study and online tutorials. One type of tutorial developed by UT today is the online tutorial (Tuton). Tuton can be alternative activities of students in understanding better modules. Online tutorial is *a tutorial-based networks* that use a LMS (Learning Management System) based on open source. Online tutorial organizer aims to optimize the utilization of the Internet to provide services to students learning aid (Pharisees, 2013). The Benefits of online tutorials is long distance learning process can be designed to be more communicative and interactive. Through online tutorials, student and tutor can interact quickly so that students immediately receive a reply, feedback or improvement of a tutor on the subject material that is not understood (Puspitasari and Huda, 2000). The online tutorial activities carried out 8 times the initiation or 8 weeks with 3 tutorial task given to the initiation to the 3, 5 and 7 (Pharisees, 2013). In online tutorial, students are expected to actively carry out the activation of at least 40 times and do 3 tasks tutorial and actively joined the discussion has been prepared by the tutor of online tutorial. If the student does not meet these requirements, students are not entitled to the score of online tutorials. Students who have been activated will be able to follow the online tutorial

based on subject of Final Examination Semester (UAS). Online tutorials score contribution to the final score of the subject is 30% (catalog UT, 2015).

During the online tutorial, students are expected to be able to understand the contents of the module. This is because students have been actively participating in various activities provided tutors during the online tutorial. Online tutorial (Tuton) expected to facilitate the students to discuss and work on exercises and tasks so that can be more understand the course material to be taken, which is ultimately the student is ready to face the final exams / UAS (Pharisees, 2013).

All UT students can become participants of an online tutorial course if they have been registered the subjects. Each participant has a tutorial identity and password after they fill out the "activation of the online tutorial" and send it back to the manager (UT). UT does not charge the students participating in the online tutorial subjects. The cost is only for internet access. Students can access the Internet using their own computers at home, the cost includes the internet and telephone bills (catalog UT, 2015).

Tutorials provided by UT is to accommodate student interaction with teaching materials, student interaction with tutors through various tutorial mode and interaction between students through a variety of group learning activities. Through a process of self-learning, guided learning and the use of a variety of learning resources as a unified whole in the learning system, students are expected to do the maximum learning process with excellent results.

Tugas Tuton

Online Tutorial Task

Besides the initiation and statements, online tutorial (Tuton) also includes work to be done by the student and submitted to online tutorial (Tuton) manager at faculty or UPBJJ-UT. According to the UT University (UT catalog, 2015), the task is one type of evaluation was conducted in the online tutorial. Assessment online tutorial tasks is one of the tools of evaluation of learning outcomes (EHB) to assess student mastery of the subject material and the ability to apply its understanding of the relevant context. Three of online tutorial tasks that must be done by the students, understand the job well, that can be done fairly and accurately. Doing online tutorial tasks properly will help students to increase the score of online tutorial participation, which ultimately will contribute to the final score of the subject.

Students are really assisted by the online tutorial, in accordance with the definition of the tutorial as: (1) guidance class by a teacher (tutor) for a student or group of students, or (2) through additional teaching tutor; tutor is defined as: (1) the person that gives lessons to a person or a small number of students (at home and not in school) or (2) lecturer who guided a number of students in the lesson (UT catalog, 2015). Based on the definition of the views of its activity, we all know that the tutorial meant to teach others or provide assistance to a person while learning. The study assistance can be provided by people who are older or the same age. Related to long distance education, learning support particularly given remotely, in addition to face-to-face. Tutorial activities involving the teaching / assist called the tutor and the learner or by the help of learning, called tutee. Of course in between tutor and tutee are materials / learning resource that is a source of knowledge studied by tutee together with tutor. Furthermore, between tutor and tutee, interaction or communication are happened, and this is what is at the core of tutorial. Communication / interaction can occur face to face, and of course in long distance education is more going on remotely.

The tutorial is not just a monopoly of those who learn the system remotely, but it can be a learning needs of each person, as prospective teachers who study at a conventional university, as reported by Hazard (1967) . Each professors who act as tutors, guiding 10 sd 12 student teachers from the first year. Tutors meet with their students as scheduled. The meeting can take place in groups or individually in accordance with the needs of each student.

If the understanding and the report diged carefully, it is actually a tutorial activities and learning activities of students that assisted by tutors. The learning process occurs only if the active learning to interact with learning resources (learning materials, tutors, environment). In other words, learning is not possible, the active if only tutor, or the environment. Therefore, student activities are highly demanded in the tutorial. This condition distinguish tutorial of regular lectures. If in lectures, professors often dominate the class while students spent more time waiting and listening, in the tutorial, the student should be the center of activity. That is, students actively perform various assessment activities facilitated by a tutor; such as analyzing the various sources of literature, discussed the matter is

difficult, writing papers, create individual reports or report groups, counseling, listening to information from guest lecturers, and discuss tasks (Hazard, 1967).

UT students who studying with a long distance system are need to be able to independently resolve all the problems that it faces learning. Printed materials in the form of modules and papers through the mass media is a close friend who faithfully support the students in solving their problems. However, these students are not uncommon to face loneliness, a feeling of isolation and a sense of loneliness that sometimes discourages learning and eventually lead to drop out. The results of various studies related to the high number of drop-outs revealed that students studying with long distance systems generally face two types of problems: (1) problems associated with achieving and acquisition capabilities and (2) problems associated with motivation to learn (Flinck & Flinck, 1990). To resolve this issue UT need to develop means of communication / interaction of two directions, namely between students and the tutor / manager. The interaction / communication are generally manifested in the tutorial, either in the form of long distance communication such as correspondents, as well as face to face communication such as face to face or online tutorials.

Tutorials can motivate students to learn and make them feel more confident. Therefore, it is time for UT to design a tutorial program in a professional manner, so that the services provided to students academic really high quality and in accordance with their needs. If tutorial does a positive impact on student achievement, the UT should require a tutorial for all students, to answer this question, various conditions must be considered.

According to Holmberg (1995), there are three types of tutorials that can be considered in long distance education. First, the long distance tutorial is done through regular correspondence or by electronic mail including facsimile and telephone. Type of long distance tutorial is a basic component in long distance education system because it is the only kind of tutorial that can be used by all students, no matter where they are located. In this case, the tutor and the student does not meet the physical / face to face, but the interaction between the two takes place remotely. Long distance tutorial is actually the most important component in long distance education (Holmberg, 1995). Therefore, to make long distance tutorial function can be effective, it needs a massive improvement, both in terms of substance tutorial, as well as the provision of feedback mechanisms. Tutorial material should be able to provide the opportunity for students to learn independently and increase their motivation to learn, while the feedback provided should be able to develop thinking skills and foster self-confidence of students.

It should be highlighted, in a long distance tutorial, feedback is the only way of interaction for students to know its capabilities, including their strengths and weaknesses. It can be cultivated among other things: (1) provide a wide selection of duty to achieve the same goal, so that the student can choose the most appropriate tasks for them; (2) loading the questions of the students with the comments / answers from tutors, along with additional reading suggestions and advice for application in practice, or other comments that are motivated; (3) give a test to test student mastery that is varied, so that students are challenged to do it and send it to the tutor in a timely manner; (4) provide feedback / comments that make students discover their strengths and weaknesses, as well as challenged to improve performance; and (5) try to get a comment or response awaited given to students on time, so the impression that the wsting task assigned can be eliminated.

Second, complementary tutorial which is scheduled consultations conducted in the posts of learning in the sub area. Personal consultation in the post study should be organized so that students feel have a place to complain. In the context of UT, a variety of posts in the sub area of learning (both in the Long Distance Learning Program Unit or UPBJJ as well as in the expansion UPBJJ) with academic personnel who are available can be utilized. Academic personnel who act as tutors can be served in rotation in the post study. Schedule individual or small group consultations were made according to the availability and expertise of tutors, and announced to the students. Students can set the time to come to the post of learning according to their needs. Activities at the study center or the post may be selection consultancy study subjects, study tips, and tutorials specific topics.

Third, tutorial residential / face t face centered on certain subjects. In the context of long distance education which held by UT, tutorials always identified with the face to face type tutorials which require the presence of tutors and students. The presence of students at UT-face to face tutorial does not meet expectations, the tutorial is still ongoing as regular teaching and learning activities. In fact, in long distance education, teaching takes place over a long distance, so that in face-to-face activities, which are necessary not a teacher, but the resource persons and moderators will facilitate face to face interaction as a supplement of activity remotely (Holmberg, 1995). Face to face activity should not be used to discuss things that are cognitive, but more widely used for: (a) to practice skills such as the laboratory practice, conversation practice / apply certain skills; (B) facilitate the understanding of the processes of communication and human behavior; (C) encourage the formation of positive attitudes and habits related to the field of study; and (d) respect and motivate between friends and cultivate the habit of cooperation through various practice.

Related to the various types of tutorials, UT now developing / testing of four different types of tutorials. The fourth type of tutorial is a face to face tutorial, tutorial by correspondents, broadcasted by radio, as well as written electronically over the Internet and fax-internet. If it is associated with different types of tutorials on Holmberg (1995), the new UT actually developed two kinds of tutorials, the long distance tutorial (written and broadcast), as well as residential tutorial (face to face). Every kind of tutorial has strengths and weaknesses of each. Face to face tutorial, the most in demand by students and administrators, have the power to give students an opportunity to interact face to face and personal, allowing students directly consultation of academic and personal problems, both the tutor and to their friends. However, this type of tutorial is not possible to reach by students in long distance areas, especially if the number of students in these places only one or two people. Tutorials written by correspondents can reach almost all the students, but the interaction can not occur directly, so that the feedback given to students require quite a long time. Radio tutorial, an affordable media and reach out for the cost of procurement programs are relatively inexpensive and almost all students have access to listen to the radio. However, as with written tutorials, tutor and student interaction can not be done directly, so that the main essence of the tutorial is not met. Finally, electronic written tutorial, a tutorial is done via the Internet and fax-internet, especially for students who already have access to the internet or fax contained in Kiosks in their respective areas. Obviously tutorial type is still limited, and response / interaction between the tutor and the student does not always happen immediately.

Ideally, the online tutorial activities will be optimal if there is an interaction or communication between the tutor with the participants and between tutorial participants. Interaction and communication is at the heart of the tutorial. In terms of students, found as many as 32% of students classified as passive where they just read, both matter initiation, questions, comments and feedback from tutors and participants tutorial without doing other things and as much as 5.8% of students classified as active with questions, comments or feedback on questions or issues thrown tutor or address any comments or answers from participants other tutorials and answer the tasks assigned tutor. Students already read the book Content Module (BMP) before they follow the tutorial, the benefits of online tutorials for students and the constraints faced by students in the activities of online tutorials.

Hamalik (2003: 73-74) that there are five main functions of learning tutorial, such as: (a) Curricular as implementers of curriculum; (B) Instructional who plays implement the learning process so that students actively learn independently; (C) Guidance diagnosis role to help students who experience weakness and strength; (D) Administrative whose role is to implement recordkeeping, reporting, assessing appropriate; (E) requirements of the programs; (F) Personal whose role is exemplary to make the students more be motivated to learn independently and get an achievement. Moreover, Hamalik says there are three main functions tutorial, such as: (1) improve students' mastery of knowledge in accordance with the loaded program; (2) increase the ability and skills of the students on how to solve problems, overcome difficulties / to be able to guide themselves; (3) enhance the ability of the students on how to learn independently and apply it to the program that is used for learning.

Research Method

This study population is a bachelor of physics education student, the sample is student who has been follow online tutorial of PEFI4208 actively. Active Students is to do the activation, begin from opening UT web site, becoming an active member of online tutorial (Tuton) and held discussions with tutors or with other students as well as active duty and answer the questions given by tutor. Data collection procedure is done in three ways, fulfill questionnaires, request of online tutorial (tuton) score and final exmas basic score to the center test. Long distance Interviews conducted to students who follow Tuton PEFI4208.

r_{11} = instrument reliability $1 / 2 \cdot 1/2 = r_{xy}$ is called the index of correlation between two parts of the instrument. After classified based on research objective, then do the qualitative descriptive data analyze, so that we can get the conclusion. Dalam penelitian ini, analisis regresi linier berganda digunakan untuk mengetahui pengaruh Tutorial online (X) terhadap Nilai UAS (Y) mahasiswa S1 Pendidikan fisika Universitas Terbuka. Proses analisis regresi linier berganda diawali dengan menguji asumsi klasik yang melandasi model regresi. Dilanjutkan dengan pengujian hipotesis untuk mengetahui signifikansi pengaruh variabel tutorial online (X). Hasil analisis regresi linier berganda dengan menggunakan bantuan software SPSS 15

In this study, multiple linear regression analysis is used to determine the influence of online tutorials (X) of the final exams Score (Y) bachelor student of physics Education UT University. Multiple linear regression analysis process begins by testing the assumptions underlying the classical regression model. Followed by hypothesis testing to determine the significance of the online tutorials variable (X) influence. The results of multiple linear regression analysis using SPSS 15

Table 1. Characteristic of Research Sample

No	Characteristic	n	%
1	The duration of a student S1 Physics Education		
	- 1 – 3 years	0	0
	- > 3 years	103	100
2	Frequency of asking questions on discussion forums		
	- 1 - 3 times	51	49.5
	- > 3 times		
	- > 4 times	52	50.5
3	The frequency of giving feedback on a discussion forum		
	- 1 - 3 times	103	100
	- > 3 times	0	0
4	Online tutorial task already done		
	- 1	7	6.8
	- 2	20	19.4
	- 3	76	73.8

Based on the above characteristics of the respondents, in terms of the length of a bachelor student of physics education, all participants had for over 3 years. Students are considered active in asking questions if they have any questions of > 5 times, and the task of > 3 times. Then the student is actively asking questions as much as 51 students (49.5%) to the question as much as 1-3 times. Students were asked a question by more than 3 times are total of 52 students (50.5%). The frequency of giving feedback in forum discussion, all of the students give feedback on the discussion forum as much as 1-3 times. Shows that the students are still less active in answering questions in the forum. Based on the online tutorial task is done, the students have been working on three tasks that as many as 76 people (73.8%). Just do one task online tutorial of 7 people (6.8%) and 2 assignments online tutorial as many as 20 people (19.4%)

Classic Assumption Testing Regression Analysis

Multiple linear regression analysis, there are several assumptions that must be met, including that the assumption of linearity, normality and heteroskedasticity. Here are the results of testing the assumptions of classical linear regression analysis: Test Results Assumptions Linieritasdalam this study conducted by curve estimation. The estimation of the curve if there exists a linear model p-value less than 0.05, it can be said that the assumption of linearity have been met.

Assumptions test of linearity in the study conducted by curve estimation. The estimation of the curve if there exists a linear model p-value less than 0.05, it can be said that the assumption of linearity have been met. Based on the result of linearity test above, in the linear model obtained p-value less than 0.05. Thus, from this testing indicated that the assumption of linearity effect of variable tutorial online (X) to the value of UAS (Y) S1 student of physics Education Open University has terpenuhi. Uji normality assumption done with graphs and statistical analysis. Analysis chart views with normal probability plots. Statistical analysis was performed with the Kolmogorov-Smirnov test the results of the regression residuals. The result of normal PP plot and represents the normal probability plots. Residual dots located around the diagonal line that indicates that the residuals are normally distributed.

Kolmogorov Smirnov test results against the results of the regression residuals with significant value 0,301. This value is greater than the error rate $\alpha = 0.05$ so it can be stated that the residuals are normally distributed, and the assumption of normality already terpenuhi. Hasil testing linearity, the linear model was obtained p-value less than 0.05. With this test the assumption linieritaspada pengaruh online tutorial variable (X) of the UAS Value (Y) S1 student of physics Education Open University has been met, the relationship between the two variables studied showed a linear line. Test normality assumption in this study conducted with graphs and statistical analysis. Analysis chart views with normal probability plots. Statistical analysis was performed with the Kolmogorov-Smirnov test the results of the regression residuals.

Based on can be seen that the residual points located around the diagonal line that indicates that the residuals are normally distributed. Kolmogorov Smirnov test results against the results of the regression residuals. Significant value for Kolmogorov Smirnov test was 0.301. This value is greater than the error rate $\alpha = 0.05$ so it can be stated that the residuals are normally distributed and the normality assumption has been fulfilled.

Heterokedastisitas assumption test is done by using a scatter plot between the predicted value of the variable Y with Studentized Residual and test Glejser. Figure 4.2 is the result of a scatter plot and Table 4 represents Glejser test results.

From the scatter plot between the predicted response variables with residual studentized found that the pattern on a scatter plot in the form of random and irregular and the point spread above and below the 0 on the Y axis so that indicate the regression model did not happen heterocedasticity or non heterokedastisitas assumption test is met.

Glejser test is done by regressing absolute residual regression results with the independent variable. If the partial test no significant independent variable residual absolute it can be concluded that no heterokedastisitas. Based on the test results Glejser in Table 5 shows that independent variables did not significantly influence the absolute residuals so that it can be said that assuming the absence heterokedastisitas met.

The analytical method used is simple regression analysis with one independent variable is the student's readiness to face online tutorial UAS (X) and the dependent variable that student retention (Y). Based on the analysis using SPSS obtained a summary of the analysis results as shown in Table is below:

A	= 0,05
Koefisien Determinasi (R ² adj)	= 0,116
F-Hitung	= 13,249
F-Tabel	= 3,935
Signifikansi	= 0,000
t-tabel	= 1,984

A	= 0,05
Determination Coefficient (R ² adj)	= 0,116
F-Count	= 13,249
F-Table	= 3,935
Significance	= 0,000
t-table	= 1,984

The regression model obtained based on Table 6 as follows:

$Y = 34,50 + 0,242 X + e$ atau coefficient on the variable X of 0.24. A positive value implies that the effect is positive tutorial. The better the quality of online tutorials value the higher the final exams.

where :

Y : Final Exam Result

X : Online Tutorial

e : error

Simultaneous regression testing is to determine whether there is influence of the independent variables together with dependent variable or to test the significance level relationships throughout the regression coefficient independent variable on the dependent variable.

Based on the test results simultaneously in Table 7 can be determined that Ho for simultaneous testing was rejected because the value of F count larger than F table and significance of less than 0.05. The conclusion of this test is proved that the online tutorial variable (X) significantly affects UAS Value (Y). Pengujian partial regression is used to determine the effect of variable tutorial online (X) of the UAS Value (Y). Partial test results are presented in. Based on 8 it can be seen that partial, online tutorials independent variable (X) has the value t count more than t-table and the significance value less than $\alpha = 0.05$. Partially independent variables have a significant effect on the value of UAS (Y). To know the goodness of a regression model, used the coefficient of determination. R2 value obtained by 0.116. Results of determination coefficient were indicating the percentage of the contribution or contribution of independent variables that influence the activity in the online tutorial (X) to the value of UAS (Y). The coefficient of determination obtained at 0.116 or 11.6%, which shows the diversity of the value of UAS (Y) can be explained by the variable tutorial online (X). Or in other words, the effect of online tutorials (X) to the value of UAS (Y) was 11.6%. the remaining balance of 88.4% is explained by other variables not studied.

Results and Discussion

The influence of online tutorials (X) to the value of UAS (Y) was 11.6%. the balance of 88.4%. Classical assumption test regresianalisis multiple linear regression analysis, there are several assumptions that must be met, including that the assumption of linearity, normality and heteroskedasticity. Here are the results of testing the assumptions of classical linear regression analysis: Test Results Assumptions Linieritasdalam this study conducted by curve estimation. The estimation of the curve if there exists a linear model p-value less than 0.05, it can be said that the assumption of linearity have been met. Every relationship between two variables have many patterns model of the relationship. There is a linear, quadratic or Kuartik. Pearson correlation precise charged when the model relationship between the two variables are more precise models of linear, quadratic or compared with other models. To see the relationships between variables that we test follows a model where we can look through the menu on the SPSS curve estimation. Then will come the test results the model of relationship variables that we will test. The model has the greatest contribution shows the relationship model variables to be tested more appropriate to the model. For example the result of the effective contribution of 50% linear model, quadratic model and the model compound 30% 29%, then our model is more directed to the linear model so that the linear correlation test can be done. Verify the assumption of linearity (or sometimes called assumption) many researchers performed before testing using a linear correlation between variables (eg product moment / pearson, or regression). So the assumption of linearity test in the study conducted by the estimation curve estimationDari curve if there exists a linear model p-value less than 0.05, it can be said that the assumption of linearity have been met.

Test normality assumption in this study conducted with graphs and statistical analysis. Analysis chart views with normal probability plots. Statistical analysis was performed with the Kolmogorov-Smirnov test on the residual normality assumption regresi.Uji results in this study conducted with graphs and statistical analysis. Analysis chart views with normal probability plots. Statistical analysis was performed with the Kolmogorov-Smirnov test on the residual results regresi.Uji Kolmogorov Smirnov is the normality test is widely used, particularly after the many statistics programs are outstanding. The advantage of this test is simple and does not give rise to differences in perception between the observer to another observer, which often occurs in the test for normality using grafik.Konsep basis of Kolmogorov Smirnov normality test is to compare the distribution of data (to be tested normality) with distribution standard normal. The standard normal distribution is data that has been transformed into the form of the Z-Score and assumed normal. So in fact the Kolmogorov-Smirnov test is the difference between normality test data with the data standard normal. As in ordinary differential test, if the significance below 0.05 means there is a significant difference, and if the significance of above 0.05 then there is no significant difference. Applying the Kolmogorov Smirnov test is that if the significance below 0.05 means that the data to be tested have significant differences with normal data standard, meaning that data is not normal.Lebih Further, if a significance above 0.05 it means there is no difference significant between the data to be tested with normal data standard, meaning that the data we test normal, do not differ from the standard normal.

If the conclusion gives an abnormal result, it can not determine what kind of transformation should be used for normalization. So yes if not normal, use plot a graph to look skewed to the right or to the left, or using Skewness and kurtosis so it can be determined what kind of transformation most appropriate dipergunakan.Uji with Kolmogorov Smirnov normality with SPSSdilakukan Program to Analyze menu, and then click on Nonparametric Test, then click Legacy Dialogs, click 1-Sample KS. K-S stands for Kolmogorov-Smirnov. It will appear the box One-Sample Kolmogorov-Smirnov Test.

Glejser test is done by regressing absolute residual regression results with the independent variable. If the partial test no significant independent variable residual absolute it can be concluded that there is no heterokedastisitas.analisis simple regression with one independent variable is the student's readiness to face online tutorial UAS (X) and a variable ependent that student retention (Y) .Pengujian simultaneous regression aims to determine whether there is influence of independent variables together with dependent variable or to test the significance level relationships throughout the regression coefficient independent variable on the dependent variable. In accordance with EEM Kurniasih (2015) argue that student results with their online tutorial on UPBJJ-UT Semarang has increased significantly with an average value of more than 75 students.

Conclusion

Activities of students in the online tutorial give significant effect on their readiness to follow the final exams and the influence of online tutorials to the score of final exams is 11.6%. Estimation curve as well as the results obtained p-value less than 0.05 linear model, so it is said that the assumption of linearity met

Suggestion

For further research for someone who research about online tutorial influence on learning outcomes in certain subject, must be also research the willingness and motivation of students on choose UT in their study, because it influences the activity and willingness of students in online tutorial learning that provided by UT.