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How to Optimize the Productivity of Private University Students in the City of Surakarta During the COVID-19 Pandemic

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Abstract: The territory of Indonesia is very wide, the total number of private university students (PTS) is more than state universities (PTN), they are a valuable and potential asset that must be managed to survive the COVID-19 pandemic to continue the baton of the ideals of the Indonesian nation which very rich and diverse, the government through each private university should have a different strategy in managing its students. The learning productivity of private students in Surakarta must be optimized. This study aims to analyze the effect of student learning productivity at private universities (PTS) in Surakarta during the COVID-19 pandemic. The learning productivity of PTS students in Surakarta is influenced by variables: competence, motivation, learning climate, learning methods, learning tools, and learning satisfaction. The research method uses a multiple linear regression approach. The results showed that the variables that had a positive and significant effect on learning satisfaction were the variables of motivation and learning climate, while the variables that were not significant on learning satisfaction were learning methods, competencies, and learning tools. The variables that have a positive and significant effect on Learning Productivity are Competence, Motivation, and Learning Satisfaction, while the variables that are not significant are the learning climate and learning equipment. Learning Methods have a negative and insignificant effect on Learning Productivity. Learning Satisfaction can mediate the independent variables of competence, learning motivation, learning climate, learning methods, learning tools on learning productivity.

Keywords: Learning Productivity, Learning Satisfaction, Private University Students

1. Introduction

The lifestyle of a new era that is all digital due to the impact of the COVID-19 pandemic, must be carried out by people all over the world to survive. The lecture process since the COVID-19 pandemic, all processes from payment registration to teaching and learning to graduation are carried out digitally. In research [1] the process of interactive learning media has a very high level of practicality for use by teachers and students in the learning process.

Higher education is a forum used for Research and Development, as well as an arena for the formation of new people to produce generations who have personality and scientific competence according to their fields [1, 2] The purpose of college is to fulfill secondary needs and gain more focused knowledge, armed with college results and getting the desired job.

Lecturers are expected to have the skills, experience, and knowledge that are qualified to be transferred to students to face the world of work.

The reason for studying in college is because, first, you want to show the best performance. Best achievement means doing something to the best of your ability. Good doesn't mean perfect. Good means doing the best in any given task. Second, practice hard work habits. Most students face difficulties in two ways: they don't know how to study or how to work hard. Very rarely, students can't do their assignments. Third, fulfill responsibilities towards parents. The sacrifices of parents in

supporting their education children's.

As a child, they must know how to appreciate it, of course by studying well. [3] In any situation and condition, the teaching and learning process must continue. (Meganti et al., 2020) [4]. Achieving learning objectives can be done in a way that adapts to the situation and conditions of students. Hybrid learning, which is a combination of various learning models, with the stages described, can be concluded as follows: (1). The first stage is a combination of face-to-face (offline) and online learning through YouTube. (2). The second stage is a combination of face-to-face learning (online via Zoom) and online via YouTube. (3). The third stage is a combination of face-to-face indirect learning (learning recording) and uploaded/online via YouTube [5].

The purpose of college is to fulfill secondary needs, gain more focused knowledge, which, armed with the results of college, will get the desired job. Lecturers are expected to have the skills, experience, and knowledge that are qualified to be transferred to their students to face competition in the world of work.

The reasons for studying in college are because: first, they want to show the best performance. Achievement means doing something to the best of your ability. Good doesn't mean perfect. Good means doing the best in any given task. Second, develop the habit of hard work.

Most students face difficulties in two ways: they don't know how to study or how to work hard. Very rarely students can't do their assignments. Third, fulfill responsibilities towards parents. The sacrifices of parents in supporting their children's education. As a child, they should know how to respect him, of course, by studying well. [6] In any situation and condition, the teaching and learning process must continue.

The hybrid learning model requires facilities and infrastructure such as cellphones, quotas, laptop wi-fi with normal/standard quality, while offline rooms and equipment for disinfecting equipment, body temperature measurements, protective face masks, hand washing facilities, antibacterial soap and hand dryers, of course. increase operating costs.

Humans are social creatures, with conditions like this, the hybrid learning process needs to be evaluated to find a new formula for the sustainability of millennial generation education where students complete more assignments without being accompanied by lecturers or instructors, where most private students are the second filter, students who need treatment and a curriculum that is certainly different from State University students. The number of Private Universities in Indonesia in 2019 was recorded at 3251 while the total State Universities were 122, with the number of new Private Universities being 7,339,164 students and the total number of new State Universities being 2,928,403 students [7]. The government should have a different way of fostering private universities so that education in Indonesia can be of high quality and able to face global competition.

From the information above, a problem can be drawn: how are the effects of competence, learning motivation, learning climate, learning methods, learning tools, and learning satisfaction on the productivity of private university students? What are the efforts to increase the productivity of private university students in Surakarta during the COVID-19 pandemic?

2. Theoretical Framework and Hypotheses

2.1. Theoretical

Productivity: productivity value shows how effective the production process is to increase output and how efficient is the input source [8]. Fabricant (1962) defines productivity as the ratio between the output obtained and the input used. Hasibuan (2007) in [8] productivity is "The ratio between output and input, if productivity increases, this is only possible by increasing the efficiency (time, materials, labor) of the work system, production techniques, and improving the skills of the workforce".

There is a significant influence between motivation and learning decisions. The need to increase student learning motivation in a task carried out to increase learning productivity [8].

High student satisfaction among students is a prerequisite for increasing learning productivity, responsiveness, quality of results, and service to students. In addition, motivation and learning satisfaction have a significant relationship [8].

Motivation and learning climate both individually and collectively have a positive effect on learning productivity [8]. There is a significant effect of competence with motivation, education, and training on work productivity [8]. Organizational climate has a positive and significant effect on learning satisfaction [8].

The success of increasing learning productivity will occur if there is continuous improvement in variables of improving the quality of learning, empowering human resources, pleasant physical conditions of the workplace, and organizational philosophy (Siagian, 2002).

Competence: Miller, Rankin, and Neathery as quoted by Parulian Hutapea and Nurianna Thoha [9] define competence as a description of what a person must know or do to carry out a job well [9].

Motivation: Yamin (2006:160-161) suggests that there are two types of motivation in learning, namely extrinsic motivation and intrinsic motivation. Extrinsic motivation is a learning activity that grows from a person's drives and needs that are not related to his learning activities. Intrinsic motivation is a learning activity that is initiated and continued, based on the appreciation of a need and encouragement related to learning activities. Furthermore, psychic-artists give different emphasis on the two types of motivation above, as Mcdougall and Freud [10] put it that "emphasizes the importance of intrinsic motivation", Skinner and Bandura [11] suggest that "emphasizes the importance of extrinsic motivation", Maslow and Rogers [12] suggest that "both motivation (intrinsic and extrinsic motivation) are equally important" [13].

Learning Climate, Halpin and Croft (in Tubbs and Garner,

2008) explains the learning climate as something intangible but important for an organization and is analogous to the personality of an individual [14]. Hoy and Miskel (in Pretorius and Villiers, 2009) explain the learning climate refers to the heart and soul of an educational institution, the psychological and institutional attributes that make the campus have a personality, which is relatively enduring and experienced by all members, which explains the collective perception of routine behavior and will influence attitudes and behavior on campus [15]. Almost in line with the opinion above, is the opinion of Sergiovanni and Startt (in Hadiyanto, 2004) which states that the study climate is an existing characteristic, which describes the psychological characteristics of a particular educational institution, influences the behavior of teachers and students, and is a feeling-psychological characteristic possessed by teachers and students in certain campuses. (Joni1 Erwin2, Volume III No. 1, June 2019) [16].

Learning Methods describe activities that are oriented towards learning objectives and how to convey information from teachers to students. One of the groupings of learning methods is grouping based on teacher-centered and student-centered approaches. Student-centered learning methods (students centered) include cooperative learning methods (cooperative learning). Cooperative learning is a learning method in the form of small groups. Students study in groups where each member has different abilities. The number of group members is between four to six students who cooperate in learning activities. Groups are usually rewarded according to how much each group member has mastered the subject matter (Slavin, 2009) [17].

Learning equipment: learning resources, facilities, and infrastructure are regulated in the Law of the Republic of Indonesia No. 12 of 2012 concerning Higher Education Article 41 (1) states that learning resources in the higher education environment must be provided, facilitated, or owned by higher education following the developed study program and (3) higher education provides facilities and infrastructure to meet educational needs according to the abilities, interests, potential, and intelligence of students (kingramli.com, June 23, 2020). Adequate equipment can save production time, labor, and costs. Moreover, with good equipment conditions, proper settings, and good maintenance, effectiveness in the laboratory can be achieved. Students not only understand the theory but need to be familiar with each type of supporting equipment in terms of practice. In practical lessons, packaging material can be formulated in the form of information sheets, job sheets, operation sheets, assessment sheets (assessment sheet), and so on according to practice [18].

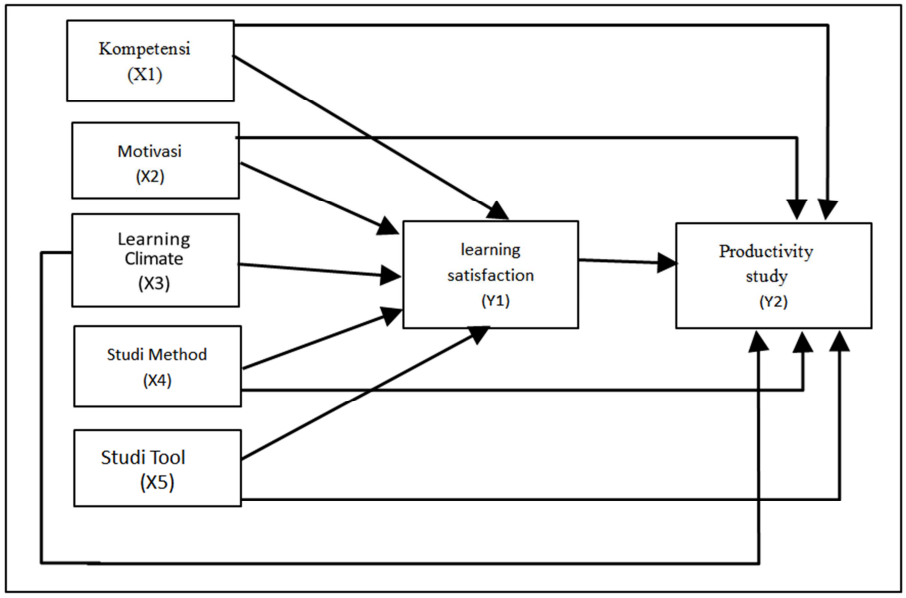


Figure 1. *Framework.*

2.2. Framework

Indicators

Table 1. *Indicators.*

No	Variable Path	Variable	Dimensi	Atribut
	Variable Exogenous			
1		Competence (X1)	1. Knowledge (X1.1)	Ability to remember Able to understand learning procedures Ability to apply knowledge Ability to analyze problems
			2. Skills (X1.2)	Ability to complete tasks Ability to use equipment Ability to solve problems quickly Ability to Interact with other people
			3. Attitude (X1.3)	Able to follow learning procedures Discipline in carrying out study instructions Obey the rules

No	Variable Path	Variable	Dimensi	Atribut
2		Motivation (X2)	1. Career Guarantee (X2.1)	Freedom of learning Compatibility of pocket money with a study load Information about scholarship opportunities Information about internship/job opportunities
			2. Supervision (X2.2)	study direction study supervision Warning on campus
3		Learning Climate (X3)	1. Reward (X3.1)	Appreciation of learning achievement Conformity of rights Existing facilities
			2. Clarity (X3.2)	Openness about targets Openness in the learning process Openness in assessment decisions Openness to student rights
			3. Flexibility (X3.3)	Work rotation Freedom of initiative
4		Study method (X4)	1. Process Sequence (X4.1)	Work Procedure Conformity with ability Conformity with job description Ease of execution of work orders
			2. Work Standards (X4.2)	Standard time Standard operation procedures (SOP)
5		Equipment Study (X5)	1. Availability (X5.1)	Readiness of equipment work and machines Suitability of work equipment
			2. Reliability (X5.2)	Ease of use Ease of maintenance
			3. Safety (X5.3)	Comfort Security
	Variable Endogenous			
6			learning satisfaction (Y1)	The happy feeling while studying Opportunity To develop yourself Support from friends on Campus and off-campus Support from Lecturers and campus Recognition of learning outcomes
7			Productivity study (Y2)	The ability from Learning Outcomes Yield/Product real generated Time for completion of the Task Find the best method Meeting Quality

2.3. Hypothesis

The hypothesis that will be tested in this study is the associative hypothesis (hypothesis), which is a statement about whether:

a. H0: There is no significant effect between competence and learning satisfaction.

H1: There is a significant effect between competence and learning satisfaction.

b. H0: There is no significant effect between learning motivation and learning satisfaction.

H1: There is a significant effect between learning motivation and learning satisfaction.

c. H0: There is no significant effect between learning climate and learning satisfaction.

H1: There is a significant effect between learning climate and learning satisfaction.

d. H0: There is no significant effect between learning methods and learning satisfaction.

H1: There is a significant effect between learning methods and learning satisfaction.

e. H0: There is no significant effect between learning equipment and learning satisfaction.

H1: There is a significant effect between learning equipment and learning satisfaction.

f. H0: There is no significant effect between competence and learning productivity.

H1: There is a significant effect between competence and learning productivity.

g. H0: There is no significant effect between learning motivation and learning productivity.

H1: There is a significant effect between learning motivation and learning productivity.

h. H0: there is no significant effect between learning climate and learning productivity.

H1: There is a significant effect between learning climate and learning productivity.

i. H0: There is no significant effect between learning methods and learning productivity.

H1: There is a significant effect between learning methods and learning productivity.

j. H0: There is no significant effect between learning tools and learning productivity.

H1: There is a significant effect between learning tools and learning productivity.

k. H0: There is no significant effect between learning satisfaction and learning productivity.

H1: There is a significant effect between learning satisfaction and learning productivity.

l. H0: Learning Satisfaction is not able to mediate the independent variables Competence, learning motivation, learning climate, methods, learning, and learning tools on learning productivity.

H1: Learning Satisfaction can mediate independent variables Competence, learning motivation, learning climate, learning methods, learning tools for learning productivity.

3. Research Method

This research was conducted at a private university located in Surakarta, Central Java. A total of 70 students became respondents. The sample of students in semester 2 (two) students who during college experienced the COVID-19 pandemic so that they had not yet undergone full campus activities. The research method used is multiple linear regression.

The sampling technique or sampling technique used is purposive simple random sampling.

3.1. Research Testing

The instruments used for data collection are as follows:

Interview The instruments used were interview guides and stationery.

Observations were made through observations of respondents/students to obtain data on task completion time, teaching, and learning activities following the variables to be studied. The instruments used are writing instruments and recordings with smartphone audio.

Questionnaires are used to measure research variables that affect the decline in student/respondent learning productivity.

A questionnaire is a collection of written questions that are compiled and distributed to obtain information from a group of people. The instrument used is a list of questions using a google form.

A closed questionnaire contains a series of questions that are used to obtain data related to research variables.

The data used in this study were sourced from primary data and secondary data.

The measurement scale of the questionnaire used is a Likert scale from 1-5.

3.2. Data Analysis Methods

Instrument Testing Techniques.

3.2.1. Validity

According to Sugiyono (2011: 90) [16], a questionnaire is said to be valid (legitimate) if the questions on a questionnaire can reveal something that will be measured by the questionnaire.

3.2.2. Reliability Test

A reliability test is an index that shows the extent to which a measuring instrument can be trusted or relied upon to be tested. A questionnaire is said to be reliable or reliable if the answer of a person or respondent to the question is consistent from time to time.

Classical Assumption Test: Normality Test Heteroscedasticity Test; Multicollinearity Test; Autocorrelation test.

3.2.3. Hypothesis Testing

Multiple Linear Regression

Analysis This analysis is used to determine the effect of the independent variable on the dependent variable:

$$Y1=\alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + e1$$

$$Y2=\alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + e2$$

Information:

Y1=Learning Satisfaction

Y2=Study Productivity

α=Constant

X1=Competence

X2=Motivation

X3=Learning Climate

X4=Learning methods

X5=Learning Media

β1 β2 β3 β4 β5=regression coefficient

e=error

T-test (Partial)

This test shows the significance of the effect of the independent variable partially on the dependent variable.

F test (simultaneous)

According to Ghozali (2012: 98) [19], the F statistical test shows whether all independent variables included in the model have a joint effect on the dependent variable.

The coefficient of determination (R2)

The coefficient of determination reflects how much the variable of the dependent variable can be explained by the independent variable.

3.3. Data Analysis and Discussion

The figure Table

Table 2. *Characteristics of Respondents by Gender.*

Gender	Total	%
Female	52	74,3%
Male	18	25,7%
Total	70	100

Source: processed data 2021.

Table 3. *Characteristics of Respondents by the source of tuition fees.*

Source of Educational Development Donations	Total	%
Parents	56	80%
Own cost	11	15,7%
Others	3	4,3%
	70	100

Source: processed data 2021.

Table 4. *Characteristics of Respondents. Based on the type of class taken.*

Class	Total	%
regular class	62	88,6%
regular afternoon	5	7,1%
Weekend Class	3	4,3%.
	70	100

Source: processed data 2021.

3.3.1. Data Analysis

Validity and Reliability

The t-test of the list of questions meets the requirements, namely the value of r count > r table (large r table=0.235).

The reliability test of the questionnaire meets the requirements. Questionnaire items are said to be reliable (feasible) if Cronbach's Alpha > 0.60.

A classical assumption test is done to get a good regression model and can provide estimates. There are four classical assumption tests, namely Multicollinearity Test, Autocorrelation Test, Heteroscedasticity Test, and Normality Test and all of them meet the requirements.

3.3.2. Hypothesis Testing Is Carried out to Answer Research Problems

t-Test Statistics (Partial)

This t-test is used to see the level of significance of the independent variables that affect the dependent variable individually or individually.

This test is carried out partially or individually by using the t statistical test for each independent variable, with a certain level of confidence (Bawono, 2006:89).

If t-count < t-table, and significant probability > 0.05, then H0 is accepted and H1 is rejected.

If t-count > t-table, and significant probability < 0.05 then H0 is rejected and H1 is accepted.

Table 5. *Result of Equation I Multiple Linear Regression.*

Model	Understanding β	Coefficients Std. Error	Standardized Coefficients Beta	t	Si g.
(Constanta)	.590	1.456		.405	.687
Competence	.078	.058	.107	1.341	.185
Motivation	.196	.053	.245	3.665	.001
Learning Climate	.208	.062	.203	3.355	.001
Study Method	.445	.074	.515	6.043	.000
Study Tools	.021	.049	.022	.432	.667

Source: processed data 2021.

Based on the Equation I table above, it can be seen that the SPSS output results are as follows:

Competence

Variable with a t-count value of 1.341 with a significance value of 0.185 greater than 0.05, which means that the competency variable has a positive and insignificant effect on the variable learning satisfaction. The results of this study do not support research from [2].

Motivation

The variable with a t-count value of 3.665 with a significance value of 0.001 is smaller than 0.05, which means the motivation variable is positive and has a significant effect on the learning satisfaction variable, support research from [3].

Learning Climate

Learning Climate Variable with a t-count value of 3.355 with a significance value of 0.001 less than 0.05, which means that the learning climate variable has a positive and significant effect on the learning satisfaction variable, This research is by research from [4].

Learning Method

Variable Method with a t-count value of 0.432 with a significance value of 0.001 less than 0.05, which means that the Learning Method variable has a positive and significant effect on the satisfaction of the learning variable, these results are in accordance with the research [5].

Learning Devices

Learning Devices Variables with a t-count value of 1.341 with a significance value of 0.667 greater than 0.05, which means that the Learning De-vices variable has a positive and insignificant effect on the learning satisfaction variable, the results of this study do not support the research [6].

Table 6. *Result of Multiple Linear Regression Equation II.*

Model	Understanding β	Coefficients Std. Error	Standardized Coefficients Beta	t	Si g.
(Constanta)	-1.861	1.586		-1.173	.245
Competence	.320	.064	.403	5.000	.000
Motivation	.131	.064	.151	2.058	.044
Learning Climate	.136	.073	.122	1.860	.068
Study Method	-.144	.100	-.153	-1.433	.157
Study Tools	.025	.053	.024	.465	.643
Learning Satisfaction	.553	.136	.507	4.064	.000

Source: processed data 2021.

Based on the Equation II table, it can be seen that the results of SPSS data processing are:

Competency variable

With a t-count value of 5,000 and a significance value of 0.000 less than 0.05, which means that the Competence variable has a positive value and has a significant effect on the Productivity variable, this research supports research [7].

Motivation variable

With a t-count value of 2.058 and a significance value of 0.044 which is smaller than 0.05, which means that the motivation variable has a positive and significant effect on the Productivity variable and this research supports research from [8].

Learning Climate Variable

With a t value of 1.860 and a significance value of 0.065 is greater than 0.05, which means that the learning climate variable has a positive and insignificant effect on the productivity variable, different from the results of research from [9].

Learning Method Variable

With a t-count value of -1.433 and a significance value of 0.157 is greater than 0.05, which means that the Learning Method variable has a negative and insignificant effect on the Productivity variable, this research does not support research [10].

Learning Device Variable

With a t-count value of 0.465 and a significance value of 0.643 greater than 0.05, which means that the Learning Device variable has a positive and insignificant effect on the Productivity variable, these results do not support the research [11].

Learning Satisfaction Variable

With a t-count value of 4.064 and a significance value of 0.000 less than 0.05, which means that the variable of Learning Satisfaction has a positive and significant effect on the variable of Learning Satisfaction, the results of this study are following the research [12].

F Test (Simultaneous)

Table 7. *F Test Results Model 1.*

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	161.790	5	32.358	68.681	.000b
Residual	30.153	64	.471		
Total	191.943	69			

Predictors: (Constant) Learning Tools, Learning Climate Motivation, Competence, Learning Methods
Source: processed data 2021.

Based on the ANOVA table, it can be seen that the F test results in this study have a coefficient value of 68.681 with a significance value of 0.000 <0.05, so it can be concluded that the independent variables Competence, Motivation, Learning Climate, Learning Methods, and Learning Equipment together affect the dependent variable on Student Satisfaction in Private Higher Education Students in Surakarta.

Table 8. *F Test Results Model 2.*

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	192.871	6	32.145	57.648	.000b
Residual	35.129	63	.558		
Total	228.000	69			

Predictors: (Constant) Learning Satisfaction Learning Tools, Learning Climate, Motivation, Competence, Learning Methods Dependent Variable: Productivity.
Source: processed data 2021.

Based on the ANOVA table, it can be seen that the f test results in this study have a coefficient value of 57.648 with a significance value of 0.000 <0.05, so it can be concluded that the variables Competence, Motivation, Learning Climate, Learning Methods, Learning Tools, and Learning Satisfaction together has an effect on the variable of Student Productivity in Private Higher Education Students in Surakarta.

Test R^2 (Coefficient of Determinants)

The coefficient of determination (R^2) shows the extent of the relationship between the dependent variable and the independent variable [20].

Table 9. *Test Results R2 (Coefficient of Determination) Model 1.*

Model	R	R Square	Adjusted R Square	Std. The error of The Estimate
1	.918a	.843	.831	.686

Predictors: (Constant) Learning Tools, Learning Climate, Motivation, Competence, Learning Methods Dependent Variable: Learning Satisfaction
Source: processed data 2021.

Table 10. *Test Results R2 (Coefficient of Determination) Model 2.*

Model	R	R Square	Adjusted R Square	Std. The error of The Estimate
1	.920a	.846	.831	.747

Predictors: (Constant) Learning Satisfaction Learning Tools, Learning Climate, Motivation, Competence, Learning Methods Dependent Variable: Productivity
Source: processed data 2021.

Based on table R2, it can be seen that the correlation coefficient (R) is 0.92a, meaning that there is a strong relationship between the independent variable and the dependent variable (because it is close to number 1). The determinant coefficient (R^2) is 0.846, meaning that the contribution of the independent variable affects the dependent variable by 84.6% while the remaining 15.4% is influenced by variables outside the model.

Path Analysis

The test is used to test whether there is an influence of intervening or mediating variables used in the path analysis method which is an extension of multiple linear regression analysis, or path analysis, namely the use of regression analysis to estimate or estimate causality between variables (causal model). Previously determined based on theory and determined the pattern of relationships between three or more variables and could not be used to confirm or reject a hypothesis (Ghozali, 2013: 249) [20].

If the value of t count > t table with a significance level of 0.05, namely 1.66123, it can be concluded that there is a mediation effect.

Table 11. *Table of Path Coefficient Calculation Results.*

	P1	P2	P3	sp2	sp3	P2P3	P1+ P2P3
X1	0,320	0,078	0,553	0,107	0,136	0,04313	0,36313
X 2	0,131	0,196	0,553	0,245	0,136	0,10839	0,23939
X 3	0,136	0,208	0,553	0,203	0,136	0,11502	0,25102

	P1	P2	P3	sp2	sp3	P2P3	P1+ P2P3
X4	-0,144	0,445	0,553	0,515	0,136	0,24609	0,10209
X5	0,025	0,021	0.553	0.022	0.136	0.01161	0.03661

Source: primary data processed 2021.

The Effect of Competence on Productivity Through Mediation of Learning Satisfaction.

Direct Effect

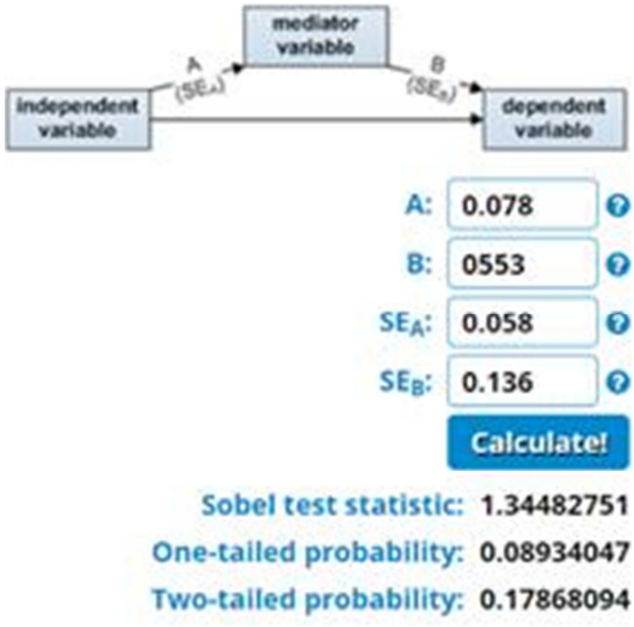
It is known that the direct effect is given by Competence (X1) on Productivity (Y2) is 0.320.

Indirect effect

The effect of Competence (X1) through Learning Satisfaction (Y1) on Productivity (Y2) is obtained from the multiplication of the beta value of Competence (X1) on Learning Satisfaction (Y1) on Productivity (Y2), namely: Indirect Effect=P2 x P3=0.04313.

The effect of mediation with the Sobel test

To determine whether it is significant or not, then tested using the Sobel test is as follows: 1.34482751.



Source: processed data 2021

Figure 2. *Sobel test The Effect of Competence on Productivity Through Mediation of Learning Satisfaction.*

t-count=1.34482751 is bigger than the t-table, it can be concluded that there is a mediating effect.

The Effect of Learning Climate on Productivity with Mediated Learning Satisfaction.

Direct Effect

The direct effect given by Motivation (X2) on Productivity (Y2) is 0.131.

Indirect Effect

The effect of Motivation (X2) through Learning Satisfaction (Y1) on Productivity (Y2) is obtained from the multiplication between the beta value of Motivation (X2) on Learning Satisfaction (Y1) on Productivity (Y2), namely: Indirect Effect=P2 x P3=0.10839.

The effect of mediation with the Sobel test.

To determine whether it is significant or not, it is tested using the Sobel test as follows: 3.69811168.

Source: processed data 2021.

Therefore, t-count=3.35483757 is greater than t-table, it can be concluded that there is a mediating effect.

The Effect of Learning Methods on Productivity with Mediated Learning Satisfaction.

Direct Effect

It is known that the direct effect is given by the Learning Method (X4) on Productivity (Y2) is 0.445.

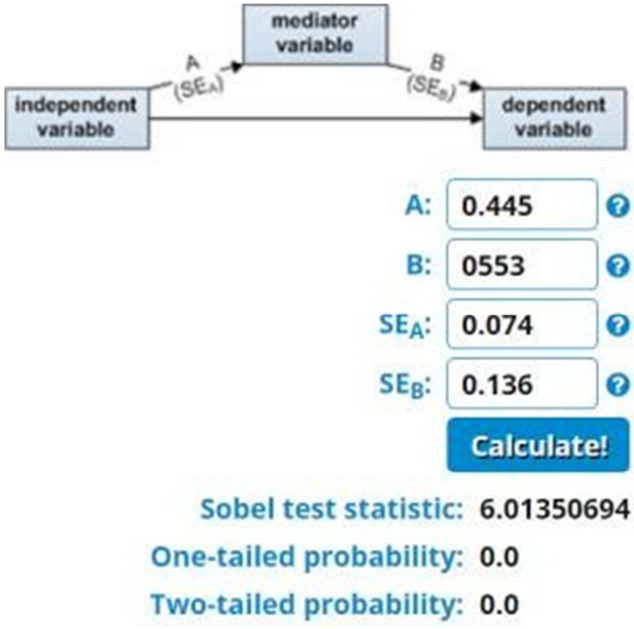
Indirect Effect

The effect of Learning Method (X4) through Learning Satisfaction (Y1) on Productivity (Y2) is obtained from the multiplication of the beta value of Motivation (X2) on Learning Satisfaction (Y1) on Productivity (Y2), namely:

Indirect Effect=P2 x P3=0.24609.

The effect of mediation with the Sobel test.

To determine whether it is significant or not, then tested using the Sobel test is as follows: 6.01350694.



Source: processed data 2021

Figure 3. *Sobel test Effect of Motivation on Productivity with Mediated Learning Satisfaction.*

Because t-count=6.01350694 is greater than t-table, it can be concluded that there is a mediating effect.

The Effect of Learning Devices on Productivity mediated by Learning Satisfaction.

Direct Effect

It is known that the direct effect given by Learning Devices (X5) on Productivity (Y2) is 0.021.

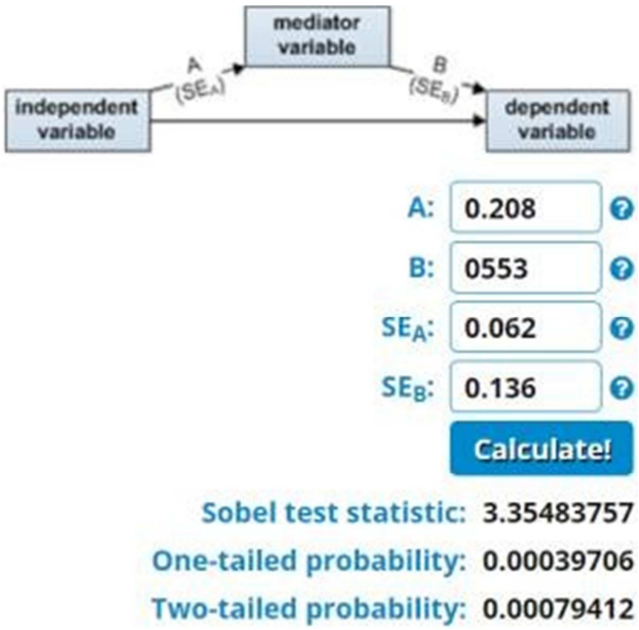


Figure 4. *Figure 4. Sobel Test of Learning Climate on Productivity with Mediated Learning Satisfaction.*

Indirect effect

Learning Devices (X5) through Learning Satisfaction (Y1) on Productivity (Y2) is obtained from the multiplication of the beta value of Learning Devices (X5) on Learning Satisfaction (Y1) on Productivity (Y2), namely:

Indirect Effect=P2 x P3=0.01161.

The effect of mediation with the Sobel test.

To determine whether it is significant or not, then tested using the Sobel test is as follows: 0.42857143.

Since t-count=0.42857143 is greater than t-table, it can be concluded that there is a mediating effect.

4. Conclusion

There is no significant relationship between competence and learning satisfaction but it has a positive effect. This study does not support research from [8, 21].

There is a significant relationship between learning motivation and learning satisfaction and has a positive effect. This study supports research from [22].

There is a significant relationship between learning climate and learning satisfaction and has a positive effect. This research supports research from [23].

There is a significant relationship between learning methods with learning satisfaction and has a positive effect. This study supports research from [8, 24].

There is no significant relationship between Learning Devices with learning satisfaction and has a positive influence. This study does not support research from [24].

There is a significant relationship between competence and learning productivity and has a positive effect. This study supports research from [8].

There is a significant relationship between learning motivation and learning productivity and has a positive effect. This study supports research from [8].

There is no significant relationship between learning climate and learning productivity and has a positive influence. This research supports research [25].

There is no significant relationship between learning methods with learning productivity and has a negative direct effect. Does not support research [19].

There is no significant relationship between learning tools and learning productivity and has a positive effect. This study does not support research from [26].

There is a significant relationship between Learning Satisfaction and learning productivity and it has a positive effect. This research supports research [27].

Learning Satisfaction Mediates Competence, Learning Motivation, Learning Climate, Learning Methods, Learning Tools on Learning Productivity.

5. Implications

Learning Satisfaction is influenced by the independent variable Learning Motivation (PT parties can increase teaching and learning process activities according to the student pocket money they receive and info on-campus learning activities directly to students' cell phones), Learning Climate (PT can increase the provision of more appropriate rights and guaranteed for outstanding students and not only providing scholarships for outstanding students but also guarantees to get a job), Learning Methods (PT provides assignments with a time that is following the time standards that apply in the industry and every assignment given, is still within the limits set owned by students, especially financial capabilities, Learning Tools (the readiness of equipment in the teaching and learning process on campus must be appropriate and guarantee and always in a condition ready to be used at any time with industry needs) during this C-19 pandemic.

Learning Productivity is influenced by the independent variable Competence (increasing the ability to use practical work equipment both in the classroom and in the laboratory following established procedures, more informative and intense to improve the ability to understand well each learning procedure is carried out daily both on campus and outside campus), Learning Motivation, Learning Satisfaction (giving confidence to all students that they have many opportunities to develop themselves that sup-port their assignments and abilities).

6. Limitations

The limitation of this study is the data collection technique, further researchers can use proportional collection techniques, because, for private universities in the form of academies, institutes, high schools, and universities, the results will be different.

7. Suggestion

Variable Learning Satisfaction is the most dominant variable affecting learning productivity because it has a value

of 0.553. Opportunities to develop themselves on campus and off-campus such as being able to do assignments by taking cases from the surrounding environment, the campus provides facilities for practical work on campus and in the industrial world without cost with sufficient time. The Final Project must have the slightest progress that contains problem-solving technology.

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