Implementation Analysis of Lecturer’s Pedagogical Competence on Student’s Academic Achievement

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Abstract

Indonesia Law number 14 of 2005, chapter 4, article 8, regarding teacher/lecturer states that teacher/lecturer must hold an academic qualification, competence, certified, physically and mentally healthy, and able to achieve the national education goals. In this law, competence refers to pedagogical, personality, professional, and social competence. In this research, the researcher studies about the influence of lecturer’s competence in improving student’s achievement. Student’s achievement is measured by using cognitive, affective, and personality factor which are expected to strengthen student’s character as independent and intelligent youth. The research was conducted at Faculty of Business and Management of Widyatama University, Bandung, Indonesia. The research uses descriptive and verification method using a type of causality investigation. This research aims at obtaining clarity regarding variable characteristics and causal relationship between the variables. Thus, multivariate regression analysis was used. The research shows that if four lecturer’s competencies are applied separately, only pedagogical which significantly influences student’s academic achievement. On the other hand, the other competencies which are applied separately don’t affect the improvement of student’s academic achievement. Meanwhile, when four lecturer’s competencies are applied simultaneously in the learning process, it shows a significant effect on student’s academic achievement of 32.1%. The remaining 67.9% is influenced by other factors which are not discussed in this study. Conclusion, lecturers should be able to improve their pedagogical competence and other intelligences such as emotional and spiritual intelligence in carrying out the profession as an educator and a teacher who has responsibility for student’s successes and strengthening student’s character.

Keywords: Indonesia Law No. 14 of 2005, Lecturer’s Competencies, Student’s Academic Achievement, Multivariate Regression
1. Introduction

In general, students expect their teachers/lecturers highly qualified, hold academic qualifications, certified, competent, as well as physically and mentally healthy. Regarding the above, Law of Republic of Indonesia No. 14 of 2005 on the teachers/lecturers is in Chapter 4 of Article 8 already set by stating that teachers/lecturers must have academic qualifications, competencies, must have certificates of educators, physically and mentally healthy, and have the ability to achieve national education goals.

This research will explore further on the implementation of the overall competences of the lecturers as required in the law above. In this study, the author will examine the influence of lecturer competence in improving student achievement. The results of the study will be very beneficial for educators to enhance the ability of their competence in providing educational services for the students and for the advancement of Indonesian national education.

2. Review of Literature and Framework

2.1 Review Literature

Teachers/lecturers competence as referred to in Indonesia Law No. 14 of 2005 on Chapter IV, Article 8, further clarified in article 10, paragraph 1, which states that "the competence of teachers/lecturers includes pedagogical competence, personal competence, social competence, and professional competence acquired through professional education ".

2.1.1 Pedagogical Competence

Pedagogical competence is the ability of understanding of learners, design and implementation of learning, evaluation of learning outcomes, and the development of learners to actualize different potentials. (Sukanti, Sumarsih, Siswanto, & Ani, 2008)

Pedagogical competence includes the sub competence:

1. Understand the characteristics of learners from the physical aspect, social, moral, cultural, emotional, and intellectual.

2. Understand the background of the family and the community of learners and the needs of students in a cultural context.

3. Understanding the learning styles and learning difficulties.

4. Facilitate the development of potential learners.

5. Mastering the theory and principles of learning and educational learning.

6. Develop a curriculum that encourages the involvement of students in learning.

7. Designing learning educate

8. Implement educational learning

9. Evaluate the process and learning outcomes.
2.1.2 Personal Competence

Personal competence is personal capacity reflects the personality of a solid, stable, mature, wise and authoritative, become role models for students, and noble.

Personal competence includes the sub competence:

1. Present yourself as a person who is steady, stable, wise, and adults as well authoritative.
2. Present yourself as a person of good character and as an example to students and community
3. Evaluating the performance of its own
4. Develop a self-sustainable manner

2.1.3 Professional Competence

Professional competence is mastery learning materials is broad and deep, which includes mastery of materials, curriculum, scientific substance that houses the material, as well as mastery of the structure and methodology.

The Professional Competence includes the sub competence:

1. Mastering the substance of the field of study and scientific methodology
2. Mastering the structure and material studies curriculum
3. Mastering and utilize information and communication technologies in learning
4. Organize studies curriculum material
5. Improving the quality of learning through action research

2.1.4 Social Competence

Social competence is the ability of teachers/lecturers to communicate and interact effectively with students, staff, parents/guardians of students, and surrounding communities.

The Social Competence includes the sub competence:

1. Communicate effectively and empathetically with the parents of learners students, fellow teachers, staff and community
2. Contribute to the development of education in schools
3. Contribute to the development of education at the local, regional, national, and global
4. Make use of information and communication technologies to communicate and developing the student’s behavior

2.1.5 Student’s Academic Achievement

Student’s academic achievement can be measured through three main factors, namely
cognitive factors, affective factors, and behavioral factors (attitude) that are expected to be able to strengthen the character of the students as a young generation who has high achievement and independent. (Utari, 2010)

2.2 Framework

This research was conducted in Undergraduate Management Department, Faculty of Business and Management, University of Widyatama Bandung and performed using descriptive method verification with the type of causality investigations aimed at obtaining clarity happens empirically regarding the characteristics of variables and causal relationship between the variables under study, so in this case the authors realize using multivariate regression analysis as the data processing.

To begin this study, the authors describe two pieces of research hypotheses as follows:

Hypothesis 1

H0: There was no significant effect partially between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

H1: There was significant effect partially between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

Hypothesis 2

H0: There was no significant effect simultaneously between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

H1: There was significant effect simultaneously between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

To arrive at testing the hypothesis that led to the research, the author conducted several stages in research framework as follows:

a. Determination of the object and the location of research

b. Design verification research with descriptive analysis using multiple linear regressions

c. The process of sampling

d. Testing the quality of data with the validity and reliability testing

e. Determination of multiple regression equation
f. Testing classical assumption (auto correlation, multi collinear test, heteroscedasticity test, and test for normality)

g. Verification analysis (hypothesis testing) and discussion

3. Research Methodology

3.1 Research Object

The object of this study include four independent variables are lecturer’s pedagogical competence, lecturer’s personal competence, lecturer’s social competence, and lecturer’s professional competence, as well as variable cumulative grade point (GPA) students as the dependent variable. Location of the study conducted in Management Department, Faculty of Business and Management, Widyatama University.

3.2 Research Method

3.2.1 Research Design

The design of the research is a verification descriptive analysis using the approach of causality investigations aimed at obtaining clarity the things occurs in the empirical (real worlds) concerning the characteristics of variables and the causes symptoms to the object observed.

3.2.2 Sampling Method

Sampling was done by using simple random sampling technique, which set the subject to be studied by means of a simple random sample directly from the population (Uma Sekaran, 2000). The size of the sample of the population using the formula Slovin (1960) as follows:

\[
n = \frac{N}{1 + Ne^2} = \frac{3000}{1 + 3000(0,1)^2} = 96
\]

Where:

N = Number of active students population at Management Department in 2013

e = Critical value (limit accuracy) desired on sampling error

3.2.3 Determining the Operational Variables

Table 1. Operational Variables

<table>
<thead>
<tr>
<th>Variable X1: Pedagogical Competence</th>
<th>Dimension</th>
<th>Indicator</th>
<th>Scale</th>
<th>Item Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable X1: Pedagogical Competence</td>
<td>1. The ability of lecturer in understanding learners</td>
<td>1. The ability of lecturer in understanding of difficulties the learners in learning process</td>
<td>Ordinal</td>
<td>1</td>
</tr>
<tr>
<td>Variable X2: Personality Competence is the personal ability of an educator (teacher/lecturer)</td>
<td>1. The lecturer’s ability to act in a manner consistent educational norms 2. The lecturer’s ability to encourage sincerity and seriousness of learners in learning consistently</td>
<td>Ordinal 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mature lecturer’s personality</td>
<td>1. The lecturer’s ability to act mature and independent 2. The lecturer’s ability to increase the resilience of learners in trying to be independent</td>
<td>Ordinal 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lecturer’s personality wisely</td>
<td>1. The lecturer’s ability to think openly (open minded) 2. The lecturer’s ability to encourage courageous learners in argue</td>
<td>Ordinal 15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. The ability of lecturer to develop the ability of students to actualize its potential</th>
<th>1. The Lecturer’s ability to facilitate learners to be able to actualize various potentials 2. The Lecturer’s ability in providing training to increase the skills learners</th>
<th>Ordinal 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. The ability of lecturer in designing and implementing the learning evaluation</td>
<td>1. The ability of lecturer in the designing problem based on the difficulty level 2. The ability of lecturer to design the achievement of learning evaluation in order to improve the academic ability of students</td>
<td>Ordinal 7</td>
</tr>
<tr>
<td>3. The ability of lecturer in delivering the material in the learning process</td>
<td>1. The ability of lecturer in controlling the learning implementation effectively 2. The ability of lecturer to use the lesson time that has been already set correctly</td>
<td>Ordinal 5</td>
</tr>
<tr>
<td>2. The ability of lecturer in designing of learning process</td>
<td>1. The ability of lecturer to determine the method of learning and determine the teaching strategies 2. The ability of lecturer to adapt the teaching materials to the needs of learners face the world of work</td>
<td>Ordinal 3</td>
</tr>
<tr>
<td>is the ability to manage the learning method of learners</td>
<td>2. The ability of lecturer in understanding of necessity the learners in learning process</td>
<td>2</td>
</tr>
<tr>
<td>1. The ability of lecturer to determine the method of learning and determine the teaching strategies 2. The ability of lecturer to adapt the teaching materials to the needs of learners face the world of work</td>
<td>Ordinal 4</td>
<td></td>
</tr>
<tr>
<td>1. The ability of lecturer to act in a manner consistent educational norms 2. The lecturer’s ability to encourage sincerity and seriousness of learners in learning consistently</td>
<td>Ordinal 12</td>
<td></td>
</tr>
<tr>
<td>1. The lecturer’s ability who steady and stable</td>
<td>1. The lecturer’s ability who steady and stable 2. The mature lecturer’s personality</td>
<td>1</td>
</tr>
<tr>
<td>Variable X2: Personality Competence is the personal ability of an educator (teacher/lecturer)</td>
<td>1. The lecturer’s ability to act in a manner consistent educational norms 2. The lecturer’s ability to encourage sincerity and seriousness of learners in learning consistently</td>
<td>Ordinal 11</td>
</tr>
<tr>
<td>2. Mature lecturer’s personality</td>
<td>1. The lecturer’s ability to act mature and independent 2. The lecturer’s ability to increase the resilience of learners in trying to be independent</td>
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</tr>
<tr>
<td>3. Lecturer’s personality wisely</td>
<td>1. The lecturer’s ability to think openly (open minded) 2. The lecturer’s ability to encourage courageous learners in argue</td>
<td>Ordinal 15</td>
</tr>
<tr>
<td>Variable X3: Professional Competence</td>
<td>1. The ability of lecturer in master the material, structure, concepts, and scientific mind set</td>
<td>1. The level of ability of the lecturers in the mastery of teaching materials</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2. The ability of lecturer in standards of competence and basic competences</td>
<td>1. The level of ability of lecturer in formulating flowchart linkages of various subjects in a curriculum</td>
<td>2. The lecturer’s ability to encourage learners to be able to understand and decipher the relationship courses and their application in the real world</td>
</tr>
<tr>
<td>3. The ability of lecturer to develop creative learning materials</td>
<td>1. The lecturer’s ability to enrich teaching materials both in theory and practical application</td>
<td>2. The lecturer’s ability to encourage students to be able to master the material thoroughly and is able to interpret</td>
</tr>
<tr>
<td>4. The ability of lecturer to develop professionalism in a sustainable manner</td>
<td>1. The lecturer’s ability to support and facilitate learners to develop further their knowledge and in-depth professional</td>
<td>2. The lecturer’s ability to encourage students to participate in various educational training even professionalism in the field</td>
</tr>
</tbody>
</table>
### Variable X4: Social Competence

- **1. The ability of lecturer to be objective**
  - The lecturer’s ability to act objective, nondiscriminatory
  - The lecturer’s ability to facilitate learners to be actively involved in learning with confidence without any pressure and differential treatment by race, physical condition.

- **2. The ability of lecturer to communicate orally and in writing**
  - The level of oral and written communication skills effectively lecturer, polite, and empathy
  - The lecturer’s ability to facilitate the involvement of learners in two-way communication that is effective in the implementation process of learning

- **3. The ability of lecturer to adapt anywhere in the charge**
  - The lecturer’s ability to socialize with students, parents of students, staff, and institutional environment
  - The lecturer’s ability to encourage students to socialize with the surrounding environment by facilitating a variety of student activities with the environment

### Variable Y: Student’s Academic Achievement

- **1. Cognitive aspect**
  - The level of academic achievement of students who assessed from GPA (cumulative grade point)

- **2. Affective aspect**
  - Level of satisfaction of the student about learning outcomes

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Operational variables of teachers/lecturers competence

According to Indonesia Law No. 14: 2005 (X1 = Pedagogical Competence, X2 = Personality Competence, X3 = Professional Competence, X4 = Social Competence) and Y= Student’s Achievement at Management Department

### 4. Findings and Discussion

**4.1 Validity and Reliability Testing**

After all the data are collected, the researcher directly conducts the statistical data processing based on the research methodology until the findings obtained. The first research will do the
validity and reliability testing to test the quality the data already collected.

A question of the questionnaires that have been deployed is valid if the Calculated Corrected Item-Total Reliability (r) is greater than Corrected Item-Total Reability table (r<sub>table</sub>) (Prof. Sugiyono; 2009).

Meanwhile, it will be declared reliable if the coefficient of reliability of the data is stated by using Cronbach's Alpha value> 0.70 (Kaplan, 1993)

Table 2. Results obtained from processing SPSS version 20.0 on the validity of the data

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
<th>r&lt;sub&gt;table&lt;/sub&gt;</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDAGOGICAL</td>
<td>12.74538</td>
<td>.624</td>
<td>.838</td>
<td>.202</td>
</tr>
<tr>
<td>PERSONALITY</td>
<td>12.79984</td>
<td>.817</td>
<td>.790</td>
<td>.202</td>
</tr>
<tr>
<td>PROFESSIONAL</td>
<td>12.79371</td>
<td>.720</td>
<td>.811</td>
<td>.202</td>
</tr>
<tr>
<td>SOCIAL</td>
<td>12.73984</td>
<td>.728</td>
<td>.808</td>
<td>.202</td>
</tr>
<tr>
<td>STUDENT’S ACHIEVEMENT</td>
<td>12.96544</td>
<td>.560</td>
<td>.875</td>
<td>.202</td>
</tr>
</tbody>
</table>

Table 3. Results obtained from processing SPSS version 20.0 on reliability of data

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.854</td>
<td>.871</td>
<td>5</td>
</tr>
</tbody>
</table>

Based on the results above, it is clear that the quality of samples taken is valid and reliable.

4.2 Multiple Linear Regression Equation
Table 4. Results obtained from processing SPSS 20.0 on multiple regression equation

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.022</td>
<td>.514</td>
<td>2.109</td>
<td>.038</td>
</tr>
<tr>
<td>PEDAGOGICAL</td>
<td>.217</td>
<td>.109</td>
<td>.193</td>
<td>1.989</td>
</tr>
<tr>
<td>PERSONALITY</td>
<td>.152</td>
<td>.143</td>
<td>.115</td>
<td>1.064</td>
</tr>
<tr>
<td>PROFESSIONAL</td>
<td>.141</td>
<td>.090</td>
<td>.162</td>
<td>1.575</td>
</tr>
<tr>
<td>ATTITUDE</td>
<td>.148</td>
<td>.087</td>
<td>.178</td>
<td>1.703</td>
</tr>
</tbody>
</table>

Dependent Variable: STUDENTS ACHIEVEMENT

As a result, the multiple regression equation obtained is

\[ Y = 0.022 + 0.217X_1 + 0.152X_2 + 0.141X_3 + 0.148X_4 \]

\( Y \) = Student’s Grade Point Achievement

\( X_1 \) = Lecturer’s Pedagogical Competence, \( X_2 \) = Lecturer’s Personality Competence, \( X_3 \) = Lecturer’s Professional Competence, \( X_4 \) = Lecturer’s Attitude Competence

### 4.3 Classical Assumption Testing

#### 4.3.1 Autocorrelation Testing

A good regression equation is an equation that has no autocorrelation problems. If autocorrelation exists, then the equation is not predicted correctly. Auto correlation problem arises if there is a linear correlation between errors that interrupt period \( t \) and errors that interrupt period \( t-1 \) (previous period) (Sunyoto, 2009).

One of the measures in determining whether there is a problem with the autocorrelation is the Durbin-Watson testing (DW):

1. There is a positive autocorrelation if DW value is below -2 or \( DW < -2 \)
2. There is no autocorrelation if DW value is between -2 and +2 or \(-2 < DW < 2\)
3. There is a negative autocorrelation if DW value is above +2 or \( DW > 2 \)
Table 5. Results obtained from processing SPSS 20.0 on Durbin-Watson

<table>
<thead>
<tr>
<th>Model Summary b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

The results above indicate that the DW_{test} = 0.842 or -2 < DW < 2.

Thus, it is found that there’s no autocorrelation in multiple regression equations obtained.

4.3.2 Multicolinearity Testing

Table 6. Results obtained from processing SPSS 20.0 on value of VIF

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Tolerance</strong></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.500</td>
</tr>
<tr>
<td>PEDAGOGICAL</td>
<td>.287</td>
</tr>
<tr>
<td>PERSONALITY</td>
<td>.439</td>
</tr>
<tr>
<td>PROFESSIONAL</td>
<td>.418</td>
</tr>
<tr>
<td>ATTITUDE</td>
<td>.418</td>
</tr>
</tbody>
</table>

Dependent Variable: STUDENTS ACHIEVEMENT

Value α which is used in the data processing is 5%, where VIF=1/α, so that VIF=20. On the other hand, the results of data processing using SPSS VIF_{test} is≤20. It means that there is no multicolinearity in all independent variables.

4.3.3 Heteroscedasticity Test

In the multiple regression equation, whether the variety of the residuals obtained from one observation is similar to another should be evaluated. Similar variety in the residual is called homoscedasticity.

An upright multiple regression equation is the one that has Homoscedasticity, or in other words, the one that has no heteroscedasticity. This testing can be performed through SPSS data processing.
Heteroscedasticity occurs if the points in the data shown in the scatterplot spread over the origin point (number 0) on the axis Y and does not have a regular pattern (Sunyoto, 2009).

4.3.4 Evaluating the normality of data

This evaluation will test whether independent variable (X) and dependent variable (Y) in the data are normally distributed or not. A good multiple regression equation occurs when the data in independent and dependent variables are near-normal or definitely normal (Sunyoto, 2009). It can be seen from the histogram obtained through SPSS process.

Below are the results of the analyses of heteroscedasticity and normality testing by using SPSS 20.0:

Figure 1. Pedagogical Scatter Plot  
Figure 2. Professional Scatter Plot  
Figure 3. Personality Scatter Plot  
Figure 4. Attitude Scatter Plot
Based on the result on scatter plots above, it is found that the points spread over the origin point (number 0) on the axis Y and do not have a regular pattern. It can be concluded that the multiple regression equation obtained is not heteroscedasticity (Sunyoto, 2009).

The histogram graph above shows normal curve. This means that the data are being analyzed is normally distributed. Similarly, normal probability plot shows normal distribution because the dots are in accordance with diagonal line.

Of all the classical assumption testing performed, it can be concluded that the multiple regression equation $Y=0.022+0.217X1+0.152X2+0.141X3+0.148X4$ is categorized as qualified equation and appropriate to be predicted and can be used to perform hypothesis testing in this research.

4.4 Analysis verification and discussion

Table 7. Results obtained from processing SPSS version 20.0 on the value of $R^2$

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.567$^a$</td>
<td>.321</td>
<td>.291</td>
<td>.741572</td>
</tr>
</tbody>
</table>

Predictors:(constant): PEDAGOGICAL, PROFESSIONAL, PERSONALITY, ATTITUDE

Dependent Variable: STUDENT’S ACADEMIC ACHIEVEMENT
From Table 7, it is found that 32.1% of students’ GPA is influenced by the competence of lecturers that are implemented simultaneously, and the rest can be affected by other variables that are not discussed in this study such as other campus facilities, curriculum, campus environment, etc. (Faorani, 2007)

Table 8. Results obtained from analyses of ANOVA SPSS 20.0 - the value of F-test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>23.684</td>
<td>4</td>
<td>5.921</td>
<td>10.767</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>50.044</td>
<td>91</td>
<td>.550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73.728</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: PEDAGOGICAL, PROFESSIONAL, PERSONALITY, ATTITUDE

Dependent Variable: STUDENTS ACHIEVEMENT

Table 9. Results obtained from processing SPSS version 20.0 on value t-test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
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<td>2.109</td>
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</tr>
</tbody>
</table>

Dependent Variable: STUDENTS ACHIEVEMENT

4.5 Hypothesis Testing

4.5.1 Partial Hypothesis

H0: There was no significant effect partially between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at
Management Department

H1: There was significant effect partially between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

Confidence Level α = 5%. By testing 2 sides, the value obtained \( t_{\text{table}} \alpha/2, n-2 = 1.980 \)

Reject H0 if \( t_{\text{test}} > t_{\alpha/2, n-2} \) or Reject H0 if \( t_{\text{test}} < -t_{\alpha/2, n-2} \) (Sugiyono, 2009). Since only pedagogical competence is calculated, so \( t_{\text{test}} > t_{\alpha/2, n-2} \) or \( t_{\text{test}} < -t_{\alpha/2, n-2} \) is equal to 1.989.

It can be proved that if lecturer’s competence is partially implemented into students learning process, one of four lecturer’s competences, only pedagogical competence significantly improves student’s GPA.

4.5.2 Simultaneous Hypothesis

H0: There was no significant effect simultaneously between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

H1: There was significant effect simultaneously between pedagogical competence, personal competence, social competence, and professional competence of lecturers at Faculty of Business and Management against student’s cumulative grade point (GPA) at Management Department

Confidence level α = 5%. By testing two sides, the value obtained \( F_{\text{table}} = F_{0.5; (4.91)} = 2.46 \)

Reject H0 if \( F_{\text{test}} > 2.46 \) or Reject H0 if \( F_{\text{test}} < -2.46 \)

Since the value of \( F_{\text{test}} = 10.767 \), it means \( F_{\text{test}} \approx 2.46 \) then H0 is rejected, and it is proven that significance level indicates that H0 is rejected with the condition \( \alpha \geq \text{sig} \) or \( 0.005 \geq 0.00 \) (Santoso, 2012).

This means that if all of the competences of lecturers are implemented simultaneously (concurrently), then this obviously can significantly improve student’s academic achievement.

5. Conclusion and suggestions

To be able to fulfill students expectations, one of which is to get professional academic services from their lecturers in accordance with the Law No.14 of 2005 on the teacher/lecturer in Chapter IV of Article 8, the researcher develops a study to find out the influence of four lecturer’s competencies implemented as set out in the above law in order to increase student’s academic achievement. The research shows that if four lecturer’s competencies (pedagogical, personality, professional, and attitude) are applied separately, only pedagogical competence which significantly influences student’s academic achievement. On the other hand, the other competencies which are applied separately do not affect the improvement of student’s
academic achievement. Meanwhile, when four lecturer’s competencies are applied simultaneously in the learning process, it shows a significant effect on student’s academic achievement improvement of 32.1%. The remaining 67.9% is influenced by other factors which are not discussed in this study.

In conclusion, lecturers should be able to improve their pedagogical competence and other intelligences such as emotional and spiritual intelligence in carrying out the profession as an educator and a teacher who has responsibility for student’s successes. Based on the above research, lecturer’s pedagogical competence must be developed in a sustainable manner. Some things that can be done in development are to enable the training of lecturers on improving the ability to manage the learning methods and mastery of active learning in both directions. It can be packed not only in the form of training, but can be in the form of seminars, workshops, and other enrichment. (Al Mawardi, 2009). On the other hand, to develop the professionalism of a lecture can do some things that become the duties and responsibilities of a lecturer among others do appropriate education for students who are already planned and targeted, conduct research and perform community service, improve and develop the academic qualifications of lecturers, be objective, upholding the legislation, as well as maintain and foster national unity. (Eman, 2008). Besides that to improve the personality of lecturer could do some things like great teaching behavior, do beforehand what the lecturer commanded to students, acting virtuous, acting become role models, be gentle, to improve their levels of morality than students, always subject to the truth, and always be patience.

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References


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