

Relationship between Lecturers' Competences and Student Academic Achievement in Indonesian Public Universities

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Abstract

Since there is a limited publication on Indonesian universities, this study aims to explore a direct and indirect relationship between four lecturers' competencies and students' academic achievement index in Indonesian public universities. This study used a quantitative approach using the Partial Least Square (PLS) model, with the data testing using SPSS Version for Windows 20. The research used 206 participants from two public Indonesian universities ranging from semester 2 and semester 8. The results showed there are two types of relationships between lecturers' competences and student academic achievement index in public universities. Among the four competencies, professional competence has a strong positive and significant effect on-campus services provided to students of the public universities in Indonesia. Similarly, campus services provided to students have a positive and significant influence on the academic achievement index of students in state universities. The higher the campus provides students' services, the more direct the student's academic achievement index will be. On the other hand, the professional and personality competences have a significant indirect effect on student achievement indexes. This study implies that lecturers should equip themselves with competencies so that they can deliver academic lecturers and services at the best level for students.

Keywords: lecturers' competencies, academic achievement, Indonesia

Introduction

Globally, there is a strong demand for the quality of lecturers to provide better quality outputs. The quality of lecturers is indicated with the levels of lecturers' competences: pedagogic, professional, personal, and social (PPPS) competences. Studies have indicated the importance of the lecturer's competence in academic university milieu, for example, Danim (2002) who argues that one of the key characteristics for better educational outputs depends on the quality and competence of the lecturers. Similarly, Triyono (2015) states that lecturers should be professional educators to deliver the highest quality service for students. For these reasons, a study on the relationship between the lecturer's competence and academic achievement is worthy of further investigation.

Within the Indonesian context, the strong demand for lecturers possessing PPPS competencies is mandated by the law (No. 15, 2005). The issue of the law aims to improve the performance and quality of higher education to meet national and international standards.

Several studies have been conducted in the areas of lecturers' competence including Sulthon (2008) who investigated the importance lecturers' competence and theoretical and practical academic activities; Abduh (2018) who investigated the importance of professional competence in teaching bilingual higher education; and Abduh, Rosmaladewi, and Basri (2018) investigated awareness and commitment of Indonesian higher education for internationalization. However, there is no specific study so far that seeks the relationship between lecturers' competence and students' academic achievement within the Indonesian higher education context. As a consequence, there is a piece of limited information and knowledge relating to this issue. Therefore, this study aims to fill this knowledge gap. This study aims to explore the relationship between lecturers' competence and students' academic achievement.

This research is significant because it is expected to provide appropriate information regarding the relationship of competence to student achievement indexes. Also, it is expected to provide solutions to improve the performance of lecturers' Indonesian higher education context. To achieve this aim, the research question guides this study: Is there any relationship between the competencies of lecturers and student academic achievement in Indonesian public universities?

1. Literature review

The literature review covers two important points: the concept of competence and previous studies on the lecturer's competence.

Concept of competence

According to Law No. 14 (2005) that pedagogical competence includes the ability to manage learning, understanding of students, design and implement learning, evaluate learning outcomes, and develop students' capacity. This pedagogic competence is related to planning and carrying out the learning process in the classroom, choosing appropriate methods, media, and assessment instruments for students. Smart and creative educators are those can create an effective and efficient learning atmosphere so that learning outcomes can be achieved optimally.

Professional competence is the ability of lecturers to understand and master material widely and deeply so that it can maximize the implementation of the lecture process (Law No. 14, 2005). Lecturers have responsibilities to provide student learning activities to achieve learning goals. Lecturers are expected to update their knowledge, and master learning materials to be taught. Preparation of material is important by searching for information through various sources such as reading the latest books, accessing the internet, keeping abreast of the latest developments and progress on the material presented.

According to Wibowo (2008), social competence is the ability of the educator as part of the community to communicate and interact effectively with students and the surrounding community. To be able to carry out community social roles, teachers must have the competence (1) normative aspects of education, that is to be good teachers are not enough to depend on talent, intelligence, and skills, but also have good intentions so that this is related to the norms that are used as the basis for carrying out their duties, (2) consideration before choosing a teacher position, and (3) having a program which leads to improving community progress and educational progress.

Arikunto (2006) argues that social competence requires educators to have good social communication skills with students, fellow educators, and heads of universities, administrative staff, and even community members. Based on the description above, lecturers' social

competencies are reflected through indicators: lecturer and student interaction, lecturer and leadership interaction, lecturer and peer interaction, lecturer interaction with student parents, and lecturer and community interaction.

According to Usman (2002), personality abilities include the following: (a) developing personality, (b) interacting and communicating, (c) carrying out guidance and counseling, (d) implementing school administration, and (e) carry out simple research for teaching purposes. Besides, the Indonesian Government Regulation Number 19 (2005) explains that social competence is the ability of educators as part of the community to communicate and get along effectively with students, fellow educators, education staff, parents of students, and the surrounding community. The social competence of a lecturer is the basic capital of the educator concerned in carrying out teacher duties.

Previous studies on lecturers' competence and students' academic achievement

Despite various studies related to competences, several studies used in this article including personality competence (Suryo, 2007), personal ability (Sonhadji, 2012), the importance of professional competence (Mantja, 2007), and professional lecturers in higher education (Abduh, 2018).

First, Suryo (2007) investigated the importance of personality competence that can impact delivering better service in the organization. The researcher argued that personality competence refers to the ability needed to be a good educator. Acting as a teacher/lecturer requires a unique personality. This personality includes strong, stable, mature, wise, and authoritative personality ability, being a role model for students, and having a noble character. A teacher must have a dual role. This role is realized according to the situation and conditions faced. Personality can be one of the important factors for the success of learning students. This personal competence includes personal abilities that are related to self-understanding, self-acceptance, self-direction, and self-direction.

Secondly, Sonhadji (2012) explains that a person's personality does not stand alone but is supported by other personal competencies, for example, knowledge of both social and religious customs, knowledge of culture and tradition, knowledge of the core of democracy, knowledge of aesthetics, having an appreciation and social awareness, having the right attitude towards knowledge and work, being loyal to human dignity, having good character, and having ethics. Besides, Mulyasa (2007) argued that more specific personal competencies are important such as being empathetic, open, authoritative, responsible, and able to judge oneself and others.

Thirdly, Mantja (2007) explored the importance of professional competence. The researcher identified that professional competence is a life skill that is needed to gain economic income. Mantja further stated that the quality of service delivered to meet customer needs is influenced by professional competence. Moreover, Sugiarto (2003), asserting a service is an act carried out to fulfill the needs of other people (customers, guests, clients, passengers, and others) that the satisfaction can only be felt by people who serve or who are served.

Fourth, Abduh (2018) investigated factors affecting the effective implementation of teaching and learning in higher education. The researcher found that professional lecturers with professional competence can work and deliver teaching materials effectively. Also, professional competence can be one of the indicators of being professional educators within a higher education context.

The studies above indicate that there have previous studies on lecturers' competence. However, none of the studies have focused on finding out the relationship between lecturers' competence and students' academic achievement. Therefore, this study seeks to explore the relationship between lecturers' competence and students' academic achievement in public higher education within Indonesian contexts. To explore the relationship between these

variables, the researchers establish the hypothesis to be tested. The hypotheses that were tested in this study are the four competencies: pedagogic competence (H1), professional competency (H2), social competence (H3), personality competency (H4), and service competency (H5) have a positive and significant direct and indirect effect through service on the academic achievement index of students in Indonesian public universities.

2. Methodological approach

The method used in this study uses a quantitative approach. The quantitative study used a questionnaire with 34 items. The questionnaire was sent to respondents in two different universities in 2017. The number of respondents was 206 comprising 102 from University A and 104 from University B. The reason for choosing these two universities is that University A is located in South Sulawesi Province representing the eastern part of Indonesia and the University B representing the western part of Indonesia. The respondents from two public Indonesian universities range from semester 2 and semester 8.

Data analysis was performed using the Partial Least Square (PLS) model with the help of SPSS version for Windows 20. The result of the data analysis includes two important items: structural model test result as can be seen in Table 1 (see result and discussion section) and the hypothesis testing result as shown in Figure 1 in the result and discussion section

3. Results and Discussion

a) Inner Structural Model Testing Results

Based on the result of the data analysis, it is shown that data was tested via an inner structural model. The inner structural model is used to test the hypothesis in the study. Hypothesis testing is done by t-test on each path of direct influence. The path of direct influence is indicated to be significant if the test results obtained a p-value <0.05. The following table 2 presents the results of testing the direct relationship hypothesis.

Table 1: Test results for Inner Model Direct Effects

Variable Eksogen	Variable Endogen	Path Coefficient	T-Statistic	P-value
Pedagogic competence (X1)	Campus service (Y1)	0.049	0.546	0.585 ^{ns}
Professional competence (X2)		0.232	2.951	0.003*
Social competence (X3)		0.046	0.549	0.583 ^{ns}
Personality competence (X4)		0.237	2.901	0.004*
Pedagogic competence (X1)	Student achievement (Y2)	0.045	0.505	0.614 ^{ns}
Professional competence (X2)		0.017	0.181	0.856 ^{ns}
Social competence (X3)		0.140	1.495	0.135 ^{ns}
Personality competence (X4)		0.009	0.100	0.920 ^{ns}
Campus services (Y1)		0.303	3.577	0.000*

It can be seen from Table 1 above that not all path coefficients are significant at the 5% error rate. There are several insignificant paths. In Table 2 above, the influence path between pedagogic competencies (X1) and campus services (Y1) has a path coefficient of 0.049 with a p-value of 0.585. It is also indicated that the variable pedagogic competence (X1) does not have a significant effect on on-campus services (Y1). The path of influence between professional competences (X2) and campus services (Y1) has a path coefficient of 0.232 with a p-value of 0.003. The professional competence variable (X2) has a significant positive effect on on-

campus services (Y1). Furthermore, the path of influence between social competence (X3) and campus services (Y1) is a path coefficient of 0.046 with a p-value of 0.583. The variables of social competence (X3) does not have a significant effect on on-campus services (Y1). It is also signaled that the path of influence between personality competences (X4) and campus services (Y1) is the path coefficient of 0.237 with a p-value of 0.004. The table shows that the personality competency variable (X4) has a significant positive effect on on-campus services (Y1).

Also, the results of the hypothesis testing paths of direct influence can be seen in Figure 1 of the path diagram below.

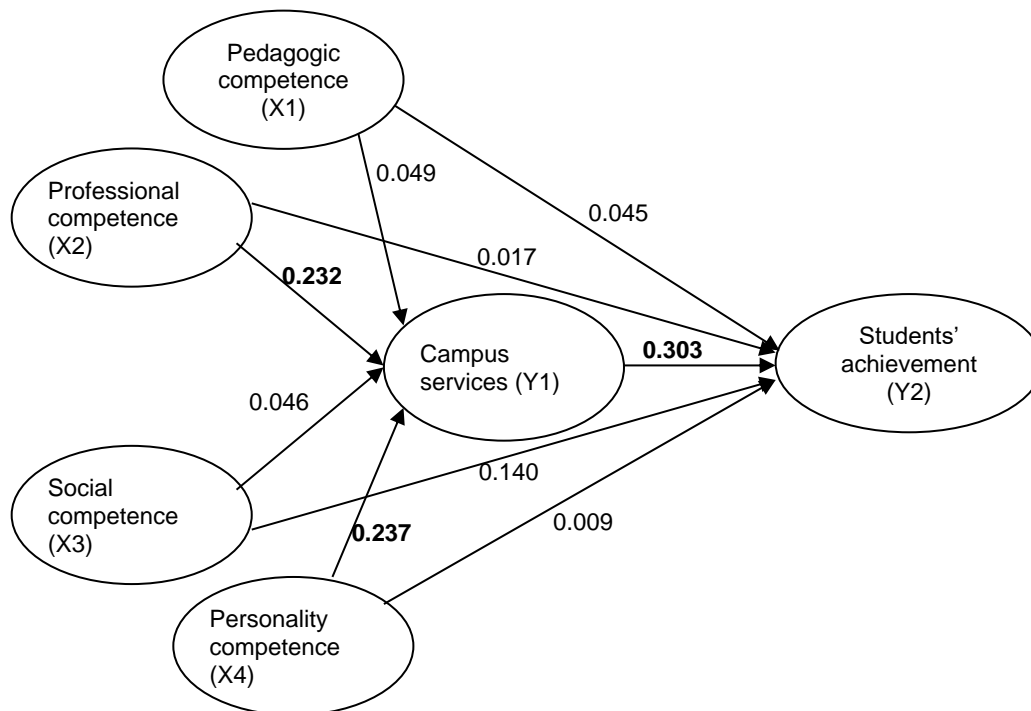


Figure 1: Hypothesis testing with Inner Model

The Figure 1 above shows the influence path between pedagogic competence (X1), professional competence (X2), social competence (X3), and personality competence (X4) and campus service (Y1) on student GPA (Y2). The table indicates that the variable pedagogic competence (X1) has a path coefficient of 0.045 with a p-value of 0.614. It signals that the variables of the pedagogic competence (X1) have no significant effect on the student GPA (Y2). While the path of the influence between professional competences (X2) on student GPA (Y2) is a path coefficient of 0.017 with a p-value of 0.856.

Figure 1 shows that the variable of professional competence (X2) does not have a significant effect on student GPA (Y2). It indicates that the path of influence between social competences (X3) on student GPA (Y2) is a path coefficient of 0.140 with a p-value of 0.135. Besides, the variable of social competence (X3) does not have a significant effect on student GPA (Y2). The path of influence between personality competence (X4) and student GPA (Y2) is a path coefficient of 0.009 with a p-value of 0.920. Also, the personality competency variable (X4) does not have a significant effect on student GPA (Y2). This is indicated by the influence path between campus services (Y1) and student GPA (Y2) is a path coefficient of 0.303 with a p-value of 0.000. Moreover, the campus service variables (Y1) have a positive and significant influence on student GPA (Y2). This data means that the higher the campus services, the more direct the student GPA will be.

b) The Indirect Effects of Exogenous Variable on Student GPA (Y2) through the mediation of Campus Service Variables (Y1).

The indirect effect of exogenous variables on student GPA (Y2) through the campus service variable (Y1) via mediation is done through Sobel Test. The Sobel results of testing of the indirect effect are shown in Table 2 below.

Table 2: Results of Testing the Mediation Effect of Campus Service Variables (Y1)

Exogenous Variable	Meditational variable	Endogen variable	Path Coefficient <i>t</i>	T-Statistic	<i>P-value</i>
Pedagogic competence (X1)	Campus service (Y1)	Student academic achievement (Y2)	0.015	0.519	0.604 ^{ns}
Professional competence (X2)			0.070	2.160	0.031*
Social competence (X3)			0.014	0.496	0.620 ^{ns}
Personality competence (X4)			0.072	2.181	0.030*

Based on Table 2 above, it is shown that two exogenous variables have a significant indirect effect on student GPA (Y2) which are professional competence (X2) and personality competence (X4). The indirect influence of professional competency variable (X2) on student GPA (Y2) through campus service variable (Y1) via mediation is 0.070 and the p-value is 0.031. The P-value less than 0.05 indicate that indirect influence is significant. Thus, from testing with Sobel Test, it is proven that the campus service variable (Y1) is a mediating variable that connects the influence of the professional competency variable (X2) on the student GPA (Y2).

The indirect effect of the personality competency variable (X4) on student GPA (Y2) through campus service variable (Y1) as mediation is 0.072 and the p-value is 0.030. The P-values less than 0.05 indicate that indirect effects are formed significantly. So, from testing with Sobel Test, it is proven that the campus service variable (Y1) is a mediating variable that connects the influence of personality competency variables (X4) on student GPA (Y2). It appears that the hypothesis testing proves that there is a significant relationship between lecturers' competences and students' academic achievement. This research means that the quality of personality competence, for example, has a contribution to the development of academic achievement of university students (Nugroho, 2018). Suryo (2007) commented that teachers or educators who strong, wise, and model characters can influence the students; academic achievement. Thus personality competence relates to what Sonhadji (2012) refers to as spiritual and cultural personality.

Also, the professional, pedagogic, and social competence contributes to the development of higher academic achievement of university students. Those competencies have a strong impact on students' academic achievement (Olivia & Shaklein, 2019). Therefore, lecturers should possess these competencies. This is in line with Wibowo (2008) and Wello, Nur, and Azis (2017) who argue that social competence is the ability of the educator as part of the community to communicate and interact effectively with students and the surrounding community. Also, the finding extends what Mantja (2007) recognizes professional competence

as a life skill that is needed to gain economic income. Moreover, Abduh (2018) believes that professional competence can contribute to the work of lecturers as professional educators.

The implication is that the learning process should be designed by incorporating technology. The current technology should help the learning process. The technology can also cover entrepreneurship themes and challenges (Azis, Haeruddin & Azis, 2018). However, not all lecturers master technology in learning. Besides, lecturers should change and should update their knowledge, especially concerning the globalization change because the condition demands them to equip with that. Lecturers should possess the ability to master the teaching and be able to adapt to the current development of technology, including the new literacy (Jayadi, & Abduh, 2020). and digital literacy (Jayadi, Agung, Abduh, & Patak, 2019). Otherwise, students will not be able to exist post-graduation. Furthermore, lecturers should be able to understand the students because every student has different skills and competencies, and also has a different cultural background.

Conclusion

From the results of the analysis, it can be concluded that the four competencies including professional, pedagogic, personality and social competences have a positive and significant influence on the campus services. Also, the campus services provided to students do have a positive and significant influence on the students' academic achievement index particularly in the cases of within Indonesian universities. This means that the higher the campus services, the more direct impact on the student achievement index will be. It is recommended that lecturers should be able to create conducive communication and interaction so that students feel comfortable in joining the lesson and be able to express their opinion independently. In addition, lecturers should be resilient and patient in dealing with different characteristics and socio-cultural background of students. Lecturers should avoid judging others based on their own perspectives. Further studies need to be conducted in the areas of economic program, language program, and engineering program particularly to explore other stakeholders on competence and academic achievement.

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