Pedagogic and Professional Competencies of Social Science Subject Teachers in Relation to Motivation and Learning Achievement

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**ABSTRACT**

The quality of education is very dependent on teachers who play a role and are the biggest contributors in the world of education. Several competencies that must be possessed by teachers are increasing motivation and learning achievement of students, including pedagogical competence and professional competence. This study aims to identify and analyze the direct and indirect relationship between pedagogic and professional competence of social studies subject teachers in relation to the motivation and learning achievement of students. The total population in this study were 107 teachers of social studies subjects. The sampling technique used Isaac Michael’s table with an error rate of 5%, the number of samples in this study were 80 social studies subject teachers. The process of sampling data used random sampling techniques with questionnaires and documentation. The collected data were then analyzed using descriptive analysis and path analysis. The findings in this study are that there is a positive direct and indirect relationship to the pedagogical and professional competence of social studies subject teachers in relation to the motivation and learning achievement of students. The level of motivation and learning achievement of students is related to pedagogical competence and professional competence. So that it is hoped that the teacher will improve on their pedagogic and professional competence and finally they can increase the motivation and learning achievement of students.

1. Introduction

The government participates in making efforts to improve the quality of a teacher. Efforts made are increasing the competencies that a teacher or educator must have. This is found in the Law of the Republic of Indonesia No. 14 of 2005

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competencies that must be possessed by teachers include pedagogical competence, personality competence, social competence, and professional competence obtained through professional education. The competence possessed by teachers through professional education is expected to be able to improve the quality of skills and attitudes in learning.

Gholami, et al. (2016) from New York University, stated that a person's competence can improve skills in being better, learning methods, so that educators are able to display their professionalism. Teachers who are professional are expected to be able to provide quality learning to students in class. Richardson et al. (2016) who came from the University of Hong Kong, stated that educators or teachers who have skills in teaching have quality learning and are able to increase the learning motivation of students. This is also stated by Julie et al (2017), teachers who have the competence or ability in teaching are able to increase the enthusiasm or motivation for learning of students. Teachers who have been certified have general and specific competences in skills and behavior so that they are able to create quality learning (Nougaret et al, 2016).

Quality learning is able to increase the learning motivation of students and is also able to achieve the goals of National Education in Law no. 20 of 2003 concerning the National Education System article 13 states, developing the potential of students to become human beings who believe and have devotion to God Almighty, have noble character, knowledge, competence, creativity, independence, and become democratic and responsible citizens. Education is a conscious and planned effort to create an atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, moral dignity, skills needed by themselves, society, nation and state.

Jamil (2014) states that teacher pedagogical competence is an ability related to understanding students and managing educational and communicative learning. Meanwhile, according to the Government Regulation of the Republic of Indonesia No. 74 of 2008 concerning Teachers CHAPTER II Pedagogic Competence is the ability of an educator to manage student learning which includes, a) understanding insight, b) understanding of students, c) developing curriculum or syllabus, d) learning design, e) implementing learning that is educating and dialogical, f) utilizing learning technology, g) evaluating learning outcomes, h) developing students to actualize their various potentials.

The success of the learning process is closely related to the pedagogical competence of the teacher in main control to determine the learning activities to be carried out. Meanwhile, professional competence according to Law no. 14 of 2005 concerning Teachers and Lecturers, professional competence is the ability to master subject matter broadly and deeply which includes mastery of subject curriculum materials in schools and scientific substances that understand the material, as well as mastery of the scientific structure and methodology. Government Regulation No. 19 of 2005, the explanation of article 28, which is meant by professional competence, is the ability to master broad and in-depth
learning materials which enables them to guide students to meet the competency standards set out in the National Education Standards. It is hoped that the teacher can motivate the learning method of students by using the right methods and media. Maulida (2019) states that appropriate learning media can increase the learning motivation of students in class.

Learning motivation according to Gonida et al. (2019), learning motivation in students can have an impact on the learning process in changes that occur in everyday life. These changes will be evident in all aspects of the new behavior as a whole, as a result of his own experiences in environmental interactions. Students who have learning motivation are able to provide feedback in obtaining information and are able to have skills in learning (Tricomi, 2016). Learning achievement can show the success rate of a teaching and learning process or the success rate of a teaching program (Syah, 2013).

Achievement is the result that someone has achieved in carrying out activities. Rauf (2020) states that learning achievement is a description of how students understand the material presented by the teacher. Learning achievement is an output value in the form of numbers or letters obtained by students after receiving learning material through tests or exams delivered by the teacher. It can be said that learning achievement is an indicator of the success of the learning process, good learning achievement can be interpreted as an implication of a good learning process, so that the better the learning process, the better the learning achievement achieved. This study aims to identify and analyze the direct and indirect relationship between pedagogical and professional competence of IPS subject teachers in relation to the motivation and learning achievement of Pekanbaru students.

2. Methodology

This type of research was survey research. The sampling technique used Isaac Michael's table with an error rate of 5%, the number of samples in this study were 80 social studies subject teachers. The data analysis technique used descriptive analysis and path analysis. To find equations for structure 1 and structure 2 can be seen in Figure 1.

![Figure 1. Direct and Indirect Relationship Between Variables](image)

To explain Figure 1, the formula is used:
a. Structure Model 1: $Y = py_1X_1 + py_2X_2 + \epsilon_1$

b. Structure Model 2: $Z = pz_1X_1 + pz_2X_2 + pzY + \epsilon_2$

This research data collection using a questionnaire using a Likert scale. The indicators of this research can be seen in Table 1 as follows:

| Variable                  | Indicator                                                                 | Source                                                      |
|---------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------|
| Pedagogic Competence      | 1. Understanding the insight or foundation of education.                  | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 2. Curriculum or syllabus development.                                    | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 3. Implementation of educational and dialogical learning.                 | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 4. Utilization of learning technology.                                    | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 5. Evaluation of learning outcomes.                                       | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 6. Development of students to actualize their various potentials.         | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
| Professional competence   | 1. Knowledge, technology or art and culture which at least includes mastery.| Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
|                           | 2. Subject matter broadly and deeply in accordance with the standard content of the educational unit program, subjects, and / or group of subjects to be taught; and concepts and methods of relevant scientific, technological or artistic disciplines that are conceptually overshadowed or coherent with the educational unit program, subjects, and / or group of subjects to be taught. | Republic of Indonesia Government Regulation No.74 of 2008 concerning Teachers |
| Motivation to learn       | 1. Persevere in the task.                                                 | Sadirman (2018)                                             |
|                           | 2. Resilient in facing adversity.                                         |                                                               |
|                           | 3. Shows interest in various problems.                                    |                                                               |
|                           | 4. Prefer to work independently.                                          |                                                               |
|                           | 5. Quickly get bored of routine tasks.                                    |                                                               |
|                           | 6. Can defend his opinion.                                                |                                                               |
|                           | 7. It is not easy to let go of what has been believed.                    |                                                               |
|                           | 8. Enjoy finding and solving problems.                                    |                                                               |
| Learning achievement      | 1. Kognitif                                                               | The value obtained from the teacher being taught is based on the UAS value or report card value in social studies subjects |
|                           | 2. Afektif                                                                |                                                               |

Data analysis techniques used prerequisite tests such as data normality test, linearity test, and multicollinearity test. After conducting the prerequisite test, a path analysis of the structure model I and the structure model II will be carried out.
3. Results and Discussion

Respondents in this study were 80 social studies subject teachers. The characteristics of the research respondents were divided into age, gender, latest education, years of service, pedagogic competency value, professional competency value, average motivation and learning achievement value of students. Judging by the age of the respondents, most of the respondents (51.25%) had an age of 40 - 49 years. In terms of gender, most of the respondents (87.5%) were women, with an average education of S1 (87.5%); The average working period of respondents is 10-19 years (75%), while the average level of the respondents’ pedagogic competence is medium (57.5%) and only 16.25% is in the high category, while the respondents’ professional competence is also on average moderate (52.5%) and only 23.75% who have a high level of professional competence.

Based on the results of the research path analysis test that has been carried out by the prerequisite analysis test, the results of the research can be seen which can be seen in Figure 2.

![Figure 2. Result of Structure I and Structure II Analysis](image-url)

Based on Figure 2, the results of the analysis of structure I and structure II show that pedagogical competence has a direct relationship to students 'learning motivation and professional competence has a direct relationship to students' learning motivation. Likewise, pedagogical competence has a direct relationship to student learning achievement and teacher professional competence has a direct relationship to learning achievement. Thus, the learning motivation of students has a direct relationship with the learning achievement of students. Based on the research results, it will produce the following equation:

\[
Y = 0.471X_1 + 0.552X_2 + 0.3521 \\
Z = 0.573X_1 + 1.166X_2 + 0.929Y + 0.540
\]

Furthermore, it can be seen that the effective contribution of pedagogic variables and professional competence is related to the motivation and learning achievement of students. The effective contribution given by each variable can be seen in Table 2.
Table 2: Effective Contribution of Pedagogic Competence (X1) and Professional (X2) Social Science Subject Teachers Relation to Learning Motivation (Y) and Learning Achievement (Z) of Students

| Independent variable | Dependent variable | Connection          | Total | Effective Donations |
|----------------------|--------------------|---------------------|-------|---------------------|
|                      |                    | Direct              | Indirect |                   |
| X1                   | Y                  | 0.471               | -      | 0.471              | 22.2%           |
| X2                   | Y                  | 0.552               | -      | 0.552              | 30.5%           |
| X1, Y                | Z                  | 0.573               | 0.438  | 1.01  | 102.2%           |
| X2, Y                | Z                  | 1.166               | 0.513  | 1.679 | 281.9%           |
| Y                    | Z                  | 0.929               | -      | 0.929              | 86.3%           |

Based on Table 2, the independent variable X1 is pedagogic competence, X2 is professional competence, Y is learning motivation, and Z is learning achievement. Table 2 shows that the largest effective contribution lies in the indirect relationship between professional competence and learning achievement through motivation, amounting to 281.9%. The lowest effective contribution is in the direct relation provided by pedagogical competence to the learning motivation of students. Based on table 2 it can be concluded that professional competence has a greater relationship to student motivation and learning achievement. So that the level of learning motivation and learning achievement of students in the learning process is determined by the pedagogical and professional competence of the social studies subject teacher.

This discussion will discuss the direct and indirect relationship between pedagogical and professional competences of social studies subject teachers in relation to the motivation and learning achievement of students. After analyzing the data, the results of the data analysis have a direct relationship between the pedagogical competence of the social studies subject teacher and the learning motivation of students. So the results of the study indicate that there is a significant direct relationship between the pedagogical competence variables of the social studies subject teacher to the learning motivation of students. This means that the high and low learning motivation of students, especially in following social studies subjects or in other words, the higher the pedagogical competence level of the social studies subject teachers, the higher the students' learning motivation in social studies learning.

Sugiasih (2015) suggested that increasing the learning motivation of students through the role of the teacher as a motivator, one of which is by using a variety of interesting learning methods, so as to attract the attention and feelings of pleasure of students in learning. Furthermore, after data analysis is carried out, the results of the data analysis have a direct relationship between the professional competence of the social studies subject teacher with the learning motivation of students. So the results of the study indicate that there is a significant direct relationship between the professional competence of social studies subject teachers on the learning motivation of students.
The level of learning motivation of students, especially in following social studies subjects, or in other words, the higher the level of professional competence of the social studies subject teachers, the higher the learning motivation of students in social studies learning. Professional competence which includes mastery of learning material, mastery of increasingly advanced technology, and broad and in-depth insights are things that must be mastered by a teacher. This has been stipulated in PP R1 No. 74 of 2008. Thus, it is hoped that teachers can improve their professional competence by developing their professional competence. Professional competency development can be done by attending workshops, training, MGMP, and seminars.

Furthermore, in the direct relation of the pedagogical competence of the social studies subject teachers to the learning achievement of students. Then obtaining the results of data analysis, there is a significant direct relationship between the pedagogical competence variables of social studies subject teachers on student learning achievement. This means that the level of learning achievement of students in the social studies subject is determined by the pedagogical competence of the social studies subject teacher. Thus it is hoped that teachers will have a high willingness to improve pedagogical competence, so that performance will increase, willingness to follow and apply the results of other training, workshops and seminars in their teaching and learning process. It is hoped that teachers will always improve their pedagogical competence by participating in various programs to increase teacher pedagogical competence both organized by the government and foundations such as seminars, teacher competency tests, training and others so that teachers have superior competencies so that they can encourage students to improve student learning achievement.

Seen in the direct relation of the professional competence of social studies subject teachers to student learning achievement. Then the results of the data analysis show that there is a significant direct relationship between the social studies subject teacher professional competence variables on the learning achievement of students. This means that the higher the level of professional competence possessed by the teacher, especially the social studies subject teacher, the higher the learning achievement value obtained by students. Thus, it is hoped that teachers will have a high willingness to improve professional competence, so that performance will increase, willingness to attend and apply the results of training, workshops and other seminars in their teaching and learning process. This is emphasized by Uno (2014), stating that the professional competence of teachers is a set of abilities that must be possessed by a teacher to carry out his teaching duties to the fullest.

Based on the data analysis, there is a significant direct relationship between the learning motivation of students and the learning achievement of students in social studies subjects. This means that the higher the level of learning motivation of students, especially in social studies subjects, the higher the learning achievement value obtained by students. Thus it is hoped that students will have a high willingness to increase learning motivation in the learning process by following the learning properly as has been prepared by the teacher concerned. Students who
have great motivation are able to have high learning achievement results. Thus students are expected to be able to achieve predetermined planning.

Furthermore, there is an indirect correlation between the pedagogical competence of social studies subject teachers on learning achievement through the learning motivation of students. Then the results of the data analysis have a significant indirect correlation between the pedagogical competence of the social studies subject teachers on learning achievement through the learning motivation of students. This means that the high learning achievement of students in social studies is determined by high pedagogical competence and is also related to high learning motivation. It is also hoped that teachers will always improve their pedagogical competence by participating in various programs to increase teacher pedagogical competence both organized by the government and foundations such as seminars, teacher competency tests, training and others so that teachers have superior competencies so that they can motivate students to increase motivation and student learning achievement.

In an indirect relationship the professional competence of social studies subject teachers to achievement through the learning motivation of students. Then the results of the study have a significant indirect relationship with the professional competence of social studies subject teachers to achievement through the learning motivation of students, learners in social studies subjects. This means that the level of learning achievement of students, especially in following social studies subjects, is determined by the level of professional competence of the teacher and the need for motivation in participating in learning. Thus, it is hoped that teachers will have a high willingness to improve professional competence, so that performance on motivation and achievement will increase, willingness to follow and apply the results of training, workshops and other seminars in their teaching and learning process.

4. Conclusion

In this study, it can be concluded that there is a direct and indirect relationship between the pedagogical and professional competences of the social studies subject teachers in relation to the motivation and learning achievement of students. Teacher pedagogic competence is a determining variable for the level of motivation and learning achievement of students, either directly or indirectly. Teacher professional competence is also a determining variable for the level of motivation and learning achievement of students, both directly and indirectly. So that teachers are expected to be able to improve and develop teacher pedagogical and professional competencies in increasing the motivation and learning achievement of students.
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