

MOTIVATION AS INTERVENING VARIABLE ON STUDENT ACHIEVEMENT THROUGH LEARNING COMPETENCIES AND FACILITIES AT SMPN 1 BUNGBULANG, GARUT REGENCY

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ABSTRACT

The purpose of this research is to analyze partially and simultaneously the influence of teachers competency and learning facilities to motivation and the implication to students achievement in SMPN 1 Bungbulang Garut District. Population and samples in this research is educator resources (teachers) and educational resources in SMPN 1 Bungbulang, Sub District Bungbulang, Garut District, West Java. The amount of educator and educational resources is 71 people. The method of this research is descriptive qualitative and verificative. Whereas the data analysis using path analysis. The descriptive analysis result of variable competency, learning facilities, motivation, and students achievement that on average in good category. The verificative analysis result and hypothesis test shows that (1) Teachers competency affects positively and significantly to motivation, (2) Learning facilities affect positively and significantly to motivation, (3) There is a positive and significant influence of teachers competency and learning facilities to students learning motivation in SMPN 1 Bungbulang Garut District (4) Teachers competency affects positively and significantly to students learning achievement 0,924% and the coefficient value is 0,854 or 85,4% with the amount of residue results 14,6%.

Keywords: Teacher competency, learning facilities, motivation, students achievements, and path analysis

INTRODUCTION

Education is a human need. Education is always changing, developing and improving in accordance with developments in all areas of life. Changes and improvements in the field of education include various components involved in it, both implementing education in the field (teachers' competence and quality of teaching staff), quality of education, curriculum devices, educational facilities and infrastructure and quality of education management including changes in learning methods and strategies used. more innovative. Efforts to change and improve are aimed at bringing the quality of education in Indonesia to be better. Law No. 20 of 2003 concerning the National Education System, Education is a conscious and planned effort to create a learning atmosphere and learning process so

that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills they need. , society, nation and state.

Garut Regency is part of West Java province which has 139 public junior high schools. Of the 139 schools based on data from the Dikpora, Garut district has 15 public and private SMP/MTs, the availability of educational facilities in the area is still limited. The number of educational facilities in Garut district, both public and private, is of course related to the large population in the area. However, the existence of educational facilities in an area may not necessarily be able to keep pace with population growth and the number of people who continue to grow over time.

Likewise, the problems faced in one of the junior high schools in Garut Regency, namely SMPN 1 Bungbulang, Garut Regency. The author conducted a pre-survey related to the variables thought to have an effect on student achievement. Based on the preliminary survey, a number of respondents (30 teachers) stated that the educational facilities (learning facilities) at SMP N I Bungbulang, were still relatively not in line with expectations, especially with regard to equipment to support their learning process. learning motivation is still relatively not as expected, especially in the tenacity component in facing difficulties in learning in students is still low. To create learning motivation, one of them is needed adequate educational facilities.

Besides, teachers at SMPN 1 Bungbulang, Garut Regency, there are still teachers who have not received teacher certification, it is also found that there are still problems of lack of teacher competence including: pedagogic competence where teachers during the learning process are still less varied in the use of learning methods, professional competence where there are still teachers not linking learning materials in students' daily lives, personality competencies where teachers are still found to be often late to class after the turn of the lesson sounds, and social competence and where teachers are still lacking in interacting with the community who can assist in the learning process and professional competence. Teachers are said to be competent according to Law No. 14 of 2005 concerning teachers and lecturers if they have mastered 4 basic competencies, namely

pedagogic competence, personality competence, social competence and professional competence.

Based on the problems above, the formulation of this research is: how motivation becomes an intervening variable on student achievement through teacher competence and adequate learning facilities.

LITERATURE REVIEW

Management is a decisive element in moving and controlling the process of administrative activities in achieving goals. Management is a science, meaning a collection of knowledge that has been systematized and organized to achieve general truths like other sciences. Artistic means the existence of skills, expertise, proficiency and ability to apply knowledge in achieving goals.

Education Management is the most important factor in providing education and teaching will be more effective in its implementation in schools, its success is measured by achievement and learning outcomes obtained, therefore in carrying out leadership, organizations must use a system, meaning that in the implementation of education in schools that it contains related components such as teachers, TU staff, parents, community, government, students, and others that must function optimally which is influenced by policies and leadership performance. Schools as an organization in the development and achievement of goals must refer to the guidelines and directions of educational development.

School management is a very strategic component in the education process.

Educational management is the art and science of managing educational resources to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, the nation's community. and State [1].

Stakeholders, namely principals and teachers, have broad freedom in managing schools without ignoring government policies and authorities through strategies such as the following: inclusive curriculum, effective teaching and learning processes, supportive school environment, resources based on equity, and standardization in certain things, monitoring, evaluation, and tests. The implementation of these five strategies will be integrated with the school management function, so that the components of education management in schools are formed, namely: management, teaching and learning processes, human resources, and school administration [2].

Teacher Competence

Teachers are cognitive agents, teachers are moral and political agents, teachers are innovators, teachers act cooperatively, and teachers are agents of social equality and education [3]. Competent teachers will be better able to create an effective, fun learning environment, and will be better able to manage their classes, so that students' learning is at an optimal level [3].

According to Law No. 14 of 2005 concerning Teachers and Lecturers (Chapter I article 1), teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing and evaluating students in early childhood education through formal education, education elementary, and intermediate. Competence is knowledge, skills, attitudes and values that are embodied in the habit of thinking and acting. The habit of thinking and acting consistently and continuously enables a person to become competent. Teachers who are considered professionally competent, if:

1. The teacher is able to develop responsibilities as well as possible.
2. The teacher is able to carry out his roles successfully.
3. The teacher is able to work in an effort to achieve the educational goals (instructional goals) of the school.
4. The teacher is able to carry out his role in the teaching and learning process in the classroom. [3].

Teachers are said to be competent if they have mastered four basic competencies, namely pedagogic competence, personality competence, social competence and professional competence.

Learning Facilities

Facilities are facilities and infrastructure that must be available to launch educational activities in schools. Facilities are all equipment, materials, and furniture that are directly used for the educational process in schools, including buildings, study rooms

(classrooms), learning media, tables and chairs'. [2].

Everything that makes it easier for students. Learning facilities that support student learning activities will make the teaching and learning process fun and obtain the expected learning outcomes.

School learning facilities are everything that helps facilitate the course of learning which includes buildings (buildings, classrooms, laboratories), school supplies (books, chalk, paper, chairs, tables), learning media and libraries.

Aspects of learning facilities include: 1) learning tools, 2) learning space/four, 3) learning time 4) teaching methods 5) students' social relationships [5].

Motivation

Abraham Maslow as a motivational figure for the flow of humanism, stated that hierarchically all human needs are contained in humans [6]. Motivation is needed in learning activities. Motivation is related to goals, motivation affects the existence of actions or learning activities so that the expected goals are achieved. Stating that there are three functions of motivation [4], namely: 1) Encouraging humans to act, so as a mover or motor that releases energy. Motivation in this case is the driving force for every activity that is carried out.

2) Determine the direction of action, namely towards the goal to be achieved. Thus, motivation can provide direction and activities that must be carried out in accordance with the formulation of goals.

3) Selecting actions, namely determining what actions must be done that are harmonious in order to achieve the goal, by setting aside actions that are not useful for that goal.

There are at least six factors that are supported by a number of psychological theories and related research that have a substantial impact on students' learning motivation. The six factors in question are: (1) attitudes, (2) needs, (3) stimulation, (4) affection, (5) competence, and (6) reinforcement. These factors can be combined when teachers design motivational strategies in learning [6].

Achievement

Achievement is an important indicator of the results obtained during education. If based on the correct terms or grammar according to the Big Indonesian Dictionary, achievement can be interpreted as the results achieved [6]. The achievements of each individual are different, depending on the level of individual or group performance on the given task. This level of performance is called the achievement level. Furthermore, the achievements of each individual are also closely related to achievement motivation, namely the desire to overcome difficult obstacles and challenges, including in terms of education [6].

Achievement motivation

In human psychic life, there is a power that is able to push it towards a great activity, so that with this power a person can achieve very fast progress. The power will multiply rapidly and will expand and have an impact on life.

Achievement motivation can also be defined as a desire related to the achievement of optimal or best internal standards.

Someone who has high achievement motivation has self-resilience, courage to take risks and will be responsible [5].

The need for achievement in achievement motivation theory was developed by David McClelland who later popularized the term "n-ach" which stands for "need for achievement", the need for achievement [6].

'Achievement motivation according to McClelland is a power in the human mind to do an activity better, faster, more efficiently than the activities carried out previously [6]. Achievement motivation is the best predictor of life and academic success [6].

Every parent usually has their own standards for children who are said to be achieving or not. However, in academia, children's learning achievement can be seen from three

indicators, namely from the cognitive, affective, and psychomotor aspects. From the cognitive aspect, the things that are considered from children are knowledge, understanding, application, and analysis. The affective domain in learning achievement indicators includes the attitudes shown by children during the learning period. In practice, children who excel will show an attitude of accepting the material presented well, responding, respecting each other, being able to work in groups, and showing a strong character in everyday life. The psychomotor aspect includes the physical skills shown by children during the learning period. Children who are said to have achieved good learning achievement will be able to coordinate the movements of the eyes, hands, feet, and other body parts, as well as pronounce, make expressions, and other physical movements.

RESEARCH METHODS

This study is intended to test rational answers so that they can explain the phenomenon that is the problem. This method is used because it not only describes and explains the empirical facts found in the field, but also analyzes the influence either partially or simultaneously between one variable and another [7].

In accordance with the problems that have been formulated, the variables in this study are as follows:

1. Teacher competence, seen from teacher competence where a teacher can realize his abilities in the teaching and learning process well. The competence of this

teacher has indicators which include; Pedagogic Competence: the ability to formulate lesson plans and the ability to use learning media. Personality Competence: Emotional stability in dealing with class/student problems and discipline in carrying out tasks. Social Competence: communicating with fellow educators in the school environment, the ability to communicate with students. Professional Competence: mastery of the material, the ability to hold a variety of learning. The measurement scale uses an ordinal scale. Teacher competence is said to be (X1).

2. Learning Facilities, Learning facilities in this study are facilities in schools that help in the ongoing learning process. To find out the influential indicators based on facilities; study area/room, handbooks, school equipment, adequate lighting. The scale used is the ordinal scale. Learning facilities are said to be (X2).
3. Learning Motivation, learning motivation referred to in this study is how an educator (teacher) and education staff see the enthusiasm in students in following subjects, where to find out there are several indicators that influence it, including; diligent in facing tasks, often looking for and solving problems, tenacious in facing difficulties, more often working independently. The scale used is the ordinal scale. Learning motivation is referred to as (Y).
4. Learning Achievement, Learning achievement in this study is seen from the daily test scores. So that educators (teachers) can see students' cognitive, affective and psychomotor abilities. Learning achievement in this study is said to be (Z).

The population in this study was educators (teachers) and education staff at SMPN I Bungbulang, Bungbulang District, Garut Regency, West Java Province. The number of Educators and Education Personnel is 71 people. (Source: SMPN I Bungbulang, Bungbulang sub-district, Garut district, West Java province, (esempesatubbl@gmail.com)). Sampling in this study was to take the entire population as a sample, namely 71 people, consisting of 64 educators and 7 education staff at SMPN I Bungbulang.

The processing design in this study begins by testing the research instrument or questionnaire using validity and reliability tests. After that, it was continued with descriptive analysis testing to obtain an overview of the research variables. Finally, perform a quantitative test using a path analysis test.

Path analysis is used to analyze the pattern of relationships between variables with the aim of knowing the direct or indirect effect of a set of independent variables (exogenous) on the dependent variable (endogenous).

Based on the research title, the path analysis model in this study can be described as follow:

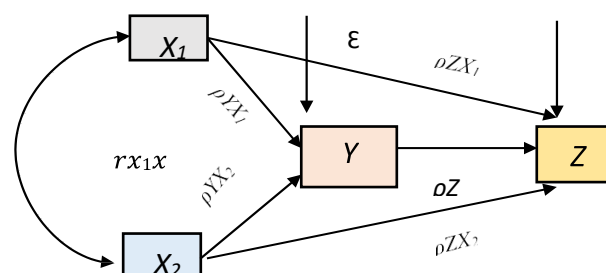


Figure 2 : Path Diagram Path Diagram X1 X2 and Y to Z

Information:

X1 = Teacher Competence

X2 = Learning Facilities

Y = Motivation

Z = Student achievement

r_{X1X2} = Competency Correlation

Coefficient with Learning Facilities.

ρ_{YX1} X1 = Koefisien Jalur Kompetensi terhadap motivasi

ρ_{YX2} X2 = Learning Facility Path Coefficient on motivation

ϵ_1 = Other factors that affect motivation.

ρ_{ZX1} X1 = Coefficient of competency path on student achievement.

ρ_{ZX2} X2 = Coefficient of learning facilities path to student achievement.

ρ_{ZY} Y = Path coefficient of motivation to student achievement.

ϵ_2 = Other factors that affect student achievement.

In path analysis, the measurement scale for both the causal variable and the effect variable must be at least an interval. By using the Succession Interval Methods (MSI), the ordinal scale can be transformed into an interval scale.

Partial Hypothesis Test:

$$t = \frac{r\sqrt{n-k-1}}{\sqrt{1-r^2}} \dots\dots 1)$$

Simultaneous Hypothesis Test:

$$F = \frac{(n-k-1)R_{YX_1X_2 \dots X_k}}{k[1-R_{YX_1X_2 \dots X_k}]} \dots\dots 2)$$

RESULTS AND DISCUSSION

The results of the research that has been carried out using the SPSS (Statistical Product and Service Solution) program with testing

results such as validity tests, reliability tests, normality tests, descriptive analysis, verification analysis, correlation analysis and coefficient of determination.

The characteristics of the respondents studied were grouped by gender, age, educational background, and years of service. The number of female teachers at SMPN 1 Bungbulang, Garut Regency is more dominant with a total of 78% while male teachers are 22%. Most of them are in the age range of 41-50 years by 51% and followed by the age range of 31-40 by 21% and in the 21-30 range by 18% and 23% while the rest are aged over 50 years by 10%. Teacher education is dominated by S1 graduates with a total of 85%, followed by high school graduates by 10%, and the remaining 5% for Masters, by having served for approximately 10-15 years with a percentage of 60%, then working period of less than 10 years amounting to 24% and working period of 15 years and above is 16%. Validity testing is calculated by comparing the value of rcount with the value of rtable, if $r_{count} > r_{table}$ then the statement can be said to be a valid statement. In this study, all statement instruments are in the valid category, if r count is greater than r table then the question can be said to be valid.

The reliability test was carried out using the Cronbach's Alpha indicator. It is known that the test results show the Cronbach's Alpha value of the four variables in this study is > 0.6 so that the four variables are declared reliable.

Analysis Description

Analysis of the description based on the recapitulation of the questionnaire distributed to the respondents was produced as follows

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Table 1 : Analysis Results Description

No.	Variable Name	Analysis Results Description	Highest Indicator Value	Lowest Indicator Value
1	Teacher Competence	Enough	Communication among colleagues	Discipline in assignments and learning variations
2	Learning Facilities	Good	Classroom Cleanliness	Availability of learning equipment
3	Achievement motivation	Enough	Asking the teacher for help when encountering difficulties	carry out a task
4	Student achievement	Enough	Student Enthusiasm	give concrete examples and use them appropriately

Verification Analysis

Path Analysis

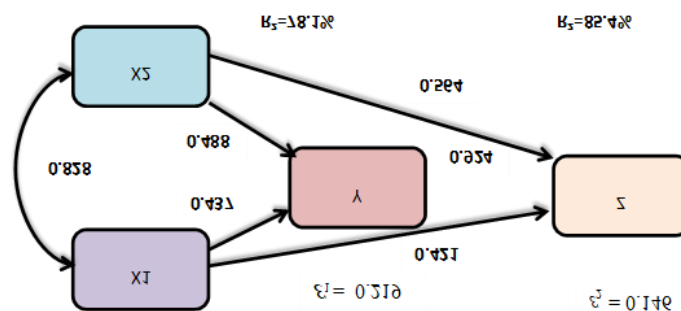


Figure 3 : Path Diagrams X1 and X2 with respect to Z through Y

$$Y = 0,437 X1 + 0,488 X2 + \epsilon_1$$

$$Z = 0,421X1 + 0,564X2 + 0,889Y$$

$$Z = 0,924Y + \epsilon_2$$

The coefficient of competence (X1) on motivation (Y) is 0.437 while the coefficient of learning facilities (X2) on motivation (Y) is 0.488. The value of R square is 0.781. This means that the coefficient of determination is $0.781 \times 100\% = 78.1\%$. This means that competence and learning facilities contribute to influencing motivation by 78.1%. The remaining $100\% - 78.1\% = 21.9\%$ or 0.219

is influenced by other variables not examined in this study.

Hypothesis testing

There is a significant influence of competence and learning facilities on motivation. There is a significant effect of motivation on learning achievement. There is a significant influence of competence and learning facilities on achievement. And there is a significant effect of learning facilities on achievement.

CONCLUSION

The results of descriptive analysis on the variables of Competence, Learning Facilities, Motivation, and Student Achievement on average are in the good category. While the results of the verification analysis using test results such as validity tests, reliability tests, normality tests, descriptive analysis, verification analysis, correlation analysis and determination coefficients and path analysis, the results show that there is a positive and significant effect of competence on motivation, there is a positive and significant influence on motivation. There is a significant influence of learning facilities on motivation, there is a positive and significant influence of competence and learning facilities on motivation, there is a positive and significant influence of competence on student achievement, there is a positive and significant influence of learning facilities on student achievement. And there is a positive and significant influence on motivation to achievement.

It is recommended that there be strict sanctions for increasing teacher competence,

fulfilling adequate learning facilities, conducting evaluations to increase student learning motivation so that it can have a significant impact on both students' grades and attitudes.

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