



Sequential explanatory analysis on teachers' creativity observed from organizational culture, visionary leadership, and personality

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Abstract

This study aims to investigate the relationship of independent variables: organizational culture, visionary leadership and personality either individually or together with the dependent variable: creativity of teachers. The total sample was 367 elementary school teachers in Bogor, West Java, Indonesia. This study used an explanatory sequential mixed method design with the first study using quantitative methods and then to deepen the research, the qualitative methods were employed. The results of this study concluded that: there was a positive relationship between organizational culture and the creativity of teachers, there was a positive relationship between visionary leadership and the creativity of teachers, there was a positive relationship between personality and creativity of teachers, there is a positive relationship of organizational culture, visionary leadership and personality together with the creativity of teachers through regression equation $y = 294.80 + (2,941) X_1 + (0.134) X_2 + (-2.239) X_3$ with coefficient of determination = 42.30%, which shows that there were other factors that also positively associated with an increase of teachers' creativity by 57.70 %.

Keywords: organizational culture, visionary leadership, personality, creativity of teachers

1. Introduction

Education is an important factor that should be the main priority of the government and the whole society's attention. The quality of education will affect the dignity and welfare of the nation. Given the importance of education, the government and various parties have been and continue to improve the quality of education through a variety of ways.

The problem is actually the quality of education cannot be separated from the teacher's role as the spearhead. The success of the learning process is strongly influenced by the teacher's role in designing and implementing the learning activities. Teachers occupy an important position, is more important than the curriculum, where no matter how well the curriculum if not accompanied by a qualified teacher then everything will be in vain. Conversely, poor curriculum will be supported by qualified teachers. Teacher education is the key to success. Therefore, the increase in the quality of education personnel continue to be pursued, one of which is how to develop their creativity.

The enactment of the School Based Management (SBM) is expected to change the paradigm and the role of the teacher in the learning process^[1]. SBM basically more emphasis on self-reliance and creativity of the school. This certainly demands also the creativity of teachers. Teachers demanded a more active, creative and innovative. Teachers do not merely act as a transfer of knowledge but rather a facilitator and agent of change.

This teacher's creativity into education unit level curriculum is demanded because learning is more emphasis in the curriculum for teachers to be able to "educate" learners in order to have the desired competence^[2].

Creativity is born as human beings and it is typical human.

Creativity is a complex field of study and have a very large dimensions, which can cause a variety of different views^[3].

Of the several theories related to creativity^[1,2,3], it can be synthesized that the creativity of the teacher is the teacher's behavior to produce something different, whether it is the idea and the real work, both in new works and in combination with things that already exist which is relatively different from what has been before. The indicators of the creativity of teachers is 1) fluency, 2) flexibility, 3) originality, 4) elaboration, and 5) redefinition.

An understanding of the actual organizational culture cannot be separated from the basic concept of culture itself, which is one of the terminology used in the field of anthropology^[4]. Today, in view of anthropology itself, the concept of culture appeared to have experienced a shift in meaning. Today culture is defined as a manifestation of the life of every person and every group of people^[5]. Now the culture is regarded as something more dynamic, not something rigid and static. Culture is not interpreted as a noun, is now more defined as a verb that is associated with human activity^[6].

Some theories synthesize that the organizational culture is a system of shared meaning held by members that distinguishes the organization from other organizations^[4, 5, 6]. The indicators used to measure the organizational culture are: innovation, attention to detail, income orientation, people orientation, team orientation, aggressiveness and stability.

Leadership is the process of directing and influencing the activities that had to do with the work of members of the group^[7]. Previous studies^[8, 9, 10] have shown that visionary leadership is an act of 'leaders' in the organization's activities to achieve the vision of the organization, and emphasizes the importance of the vision it has set, so the steps from planning,

implementation, monitoring and evaluation is a manifestation of the vision of the organization. The indicators used to measure the visionary leadership is 1) to communicate effectively, 2) to understand the external environment and to react quickly, 3) to establish organizational practices, procedures, products and services, and 4) to develop the experience of the past to anticipate the future.

After several decades, the branch of personality psychology personality obtaining a taxonomic approach that is generally accepted that the dimensions of the Big Five Personality [11]. Big Five Personality or also called the Five Factor Model by Costa & McCrae was made based on a simpler approach. Here, researchers sought to discover the basic unit of personality by analyzing the words that people use in general, are not only understood by psychologists, but also ordinary people [12, 13].

Based on the opinions of the above, it can be synthesized that personality is a set of characteristics, tendencies, and temperament (people) unique and relatively stable and significantly shaped by genetic / hereditary factors of social, cultural and environmental and influence attitudes and behavior of individuals. The indicators are as follows: 1) Openness to experience 2) Conscientiousness, 3) Emotional Stability, 4) Agreeableness, 5) Neurotism.

2. Materials and methods

The research method combined qualitative and quantitative models. Quantitative research used survey method with correlation approach. The research variables consisted of three independent variables: organizational culture (X₁), visionary leadership (X₂) personality (X₃) and the dependent variable is the creativity of teachers (Y). The population of this research is all public elementary school teachers in the regency of Bogor, which consists of 40 (forty) districts with a number of public elementary school as much as 1544 and 8380 the number of teachers. The sample in this study were taken using proportionate random sampling determination of the sample size by using Morgan and Krejcie table [14] based on an error of 5% resulting in the sample size of 367 respondents. The collected data were made statistical description of hypothesis test through the requirement analysis test by way of: normality test using the formula Lilliefors, variant homogeneity test using Bartlett's test, and regression test to determine the relationship between variables.

In qualitative research, the focus of the research is as follows:

1. Does the variable data of X₁ obtained through quantitative research have the same trend as the data obtained through qualitative research?
2. Does the variable data of X₂ obtained through quantitative research have the same trend as the data obtained through qualitative research?
3. Does the variable data of X₃ obtained through quantitative research have the same trend as the data obtained through qualitative research?
4. Does the data of Y variable obtained through quantitative research have the same trend as the data obtained through qualitative research?
5. Is the quantitative relationship of X₁, X₂, X₃ to Y in line with the qualitative data.
6. Are there other factors beyond the X₁, X₂, X₃ relating to Y.

The target of this study were taken in three (3) schools based on the category of upper, middle and lower elementary schools in the district of Babakan Madang (upper), Sukamakmur (middle) and Cileungsi (lower).

3. Results & Discussion

Instruments of teachers' creativity of consists of 35 valid items with the lowest score of 35 and the highest of 175 with a median of 105. The results of qualitative research indicated a tendency of high category in all indicators in Elementary School teacher and primary school in Babakan Madang subdistrict Sukamakmur, while teachers in the district of Cileungsi indicated a low creativity.

Organizational culture variable instrument consists of 36 valid items with the lowest score 36 and highest theoretical 180, with a median of 108. The culture of the organization in this study have relatively high category. Basically, almost all indicators of organizational culture variables appear and are understood by the teachers, but there are differences that reflect the particularities of the organizational culture of each school.

Visionary leadership instrument consists of 35 valid statement. The lowest score is 35 and the highest is 175 with a median of 105. Basically all the indicators of the variables indicated the principal's visionary leadership but there are differences in certain indicators that show the peculiarities of each school.

Variables of personality consists of 34 valid statement with the lowest score of 34 and 170 the highest with a median of 102. Basically all the indicators of personality variables appear and held by teachers in two schools, namely in elementary schools in the District Babakan Madang and Sukamakmur, while at elementary schools in the District Cileungsi indicator of personality appears on the indicator of consciousness in where the implementation of the tasks, the teachers feel responsible to all the work to be carried out so as to implement each work carefully and always make plans in each work to be performed. Normality calculation results are shown in Table 1.

Table 1: Summary of Normality Test Data Using Lilliefors Test

No.	Items	L _o	L _t		Conclusions
			(α = 0.05; n = 367)	(α = 0.01; n = 367)	
1	Y- \hat{Y}_1	0.045	0.046	0.054	Normal
2	Y- \hat{Y}_2	0.045	0.046	0.054	Normal
3	Y- \hat{Y}_3	0.044	0.046	0.054	Normal

Normal if L_o < L_t

Homogeneity of variance of data were tested by using *Bartlett* test where the test results are shown in Table 2.

Table 2: Homogeneity Test

Items	Calculated χ	χ table	
		(α = 0.05)	(α = 0.01)
Y > X ₁	53.964	356.325	375.221
Y > X ₂	51.736	358.456	377.407
Y > X ₃	51.507	359.522	378.499

Homogeneous if Calculated χ < χ table

Since all values of calculated χ is < χ table, it is concluded the data is homogenous and eligible for further data processing

3.1 The relationship between organizational culture and teachers' creativity

Hypothesis testing results show that there is a functional relationship between organizational culture and creativity of teachers with the regression equation $Y = 96.188 + 0.387 X_1$ and $F_{\text{calculated}} = 69.441 > F_{\text{table}} (\alpha = 0.05) = 3.87$ and $F_{\text{table}} (\alpha = 0.01) = 6.70$ indicating a very significant regression. The resulting correlation coefficient value of 0.400 indicates that any increase in the score of organizational culture will enhance the creativity of teachers. The coefficient of determination between the culture of the organization with the creativity of teachers is $R_{y1}^2 = 0.160$. This means that 16.00% of teachers' creativity is the result of the organization's culture, while 84.00% is contributed by other variables that have a relationship with an increase in teachers' creativity. The findings obtained in this study supporting the previous research^[4, 5, 6] that organizational culture is a system of shared meaning held by members that distinguishes the organization from other organizations. Teachers will act professionally and be able to realize the vision and mission of the organization. The state of conducive workplace provides opportunities for teachers to develop ideas, innovate and realize the creativity in the form of learning activities in the classroom, increase their productivity, implement its findings in the form of lesson plans according to the needs of learners, making the media and means of creative learning. They also can become a model of good moral ethical behavior for learners and can synergize with all elements of the school in providing optimal service to learners.

This means that the higher culture of the organization, the higher the creativity, and vice versa, the lower the organization's culture then the lower the creativity. Thus, the data in the analysis of this study further support the results of previous studies regarding the existence of a positive relationship between organizational culture and creativity of teachers^[15, 16]. Similarly, qualitative research based on the analysis of interview, observation and documentation in three public elementary school in Bogor, it can be seen that there is a tendency of the relationship between organizational culture and creativity of teachers. This explains the strengthening of quantitative research results of testing the hypothesis that there is a functional relationship between organizational culture and creativity that has a very significant regression and showed that any increase in score of organizational culture will enhance the creativity of teachers. From the results obtained in study 2 this stage it is known that organizational culture is a system of shared meaning held by members that distinguishes the organization from other organizations will make teachers work seriously and discipline so as to contribute to enhance the creativity of teachers.

3.2 The relationship between the visionary leadership to teachers' creativity

The hypothesis testing results show that there is a functional relationship between visionary leadership and creativity with the regression equation $Y = 96.515 + 0.390 X_2$ with $F_{\text{calculated}} = 66.68 > F_{\text{table}} (\alpha = 0.05) = 3.89$ and $F_{\text{table}} (\alpha = 0.01) = 6.76$ indicating the regression is very significant. The resulting correlation coefficient value of 0.393 indicates that any increase in score of visionary leadership will enhance the

creativity of teachers. The coefficient of determination between the visionary leadership and creativity is 0.1544. This means that 15.44% of creativity is the result of the workings of visionary leadership, while 84.56% is contributed by other variables that have a relationship with the increased creativity. The findings obtained in this study support previous research that visionary leadership is an act of 'leaders' in the organization's activities to achieve the vision of the organization, and emphasizes the importance of the vision it has set, so the steps from planning, implementation, monitoring and evaluation is a manifestation of organizational vision^[8, 9, 10].

The higher the visionary leadership of then the higher the creativity of teachers, and vice versa, the lower the lower the visionary leadership of the teachers' creativity. With discovered facts and data in this analysis further supports previous research about the positive relationship between the visionary leadership to creativity^[17, 18]. Similarly, qualitative research based on the analysis of interview, observation and documentation in three public elementary schools in Bogor, reveal a tendency relationship between the visionary creativity of teachers. This suggests a strengthening of quantitative research results of testing the hypothesis that there is a functional relationship between the visionary creativity of teachers with very significant regression and showed that any increase in score visionary leadership will enhance the creativity of teachers. From the results obtained in this stage it is known that visionary leadership is an act of 'leaders' in the organization's activities to achieve the vision of the organization, and emphasizes the importance of the vision it has set, so the steps from planning, implementation, monitoring, and evaluation is the embodiment of the vision of the organization to contribute to improving teachers' creativity.

3.3 The relationship between personality and teachers' creativity.

The hypothesis testing results show that there is a functional relationship between personality and creativity of teachers with the regression equation $y = 102.344 + (0.362) X_3$ and $F_{\text{calculated}} = 57.82 > F_{\text{table}} (\alpha = 0, 05) = 3.89$ and $F_{\text{table}} (\alpha = 0.01) = 6.76$ indicating the regression is very significant. The resulting correlation coefficient value of 0.370 indicates that any increase personality score can improve their creativity. The coefficient of determination between the personality and teachers' creativity is 0.1369 meaning 13.69% of teacher's creativity is the result of the workings of the personality, while 86.31% is contributed by other variables that have a relationship with an increase in teachers' creativity. The findings obtained in this study supported the previous studies that personality is a set of characteristics, tendencies, and temperament (people) unique and relatively stable and significantly shaped by genetic / hereditary factors of social, cultural and environmental and influence the attitudes and behavior of individuals^[11, 12, 13].

The discovery of facts and data in this analysis further supports previous research about the positive relationship between personality and creativity of teachers^[19, 20]. Similarly, qualitative research based on the analysis of interview, observation and documentation in three public elementary

school in Bogor reveals the tendency of the relationship between personality and creativity of teachers. This suggests a strengthening of quantitative research results of testing the hypothesis that there is a functional relationship between personality and creativity of teachers with very significant regression and showed that any increase in the teacher's personality score will enhance the creativity of teachers.

3.4 Relationship between organizational culture, visionary leadership, and personality to creativity

Hypothesis testing results show that there is a functional relationship between organizational culture, visionary leadership and personality together with the creativity of teachers indicated by the regression equation $Y = 294.80 + 2,941 X_1 + 0.134X_2 - 2.239 X_3$. The value of correlation coefficient between organizational culture, visionary leadership and personality together with the creativity of teachers is 0.650 indicates that any increase in the score of organizational culture, visionary leadership and personality together will increase the creativity of teachers. The results obtained for the coefficient of determination is 0.423 meaning that 42.30% of teachers' creativity is the result of the workings of the organization's culture, visionary leadership and personality together, while 57.7% was contributed by other variables that have a relationship with an increase in teachers' creativity. The findings obtained in this study indicate that, if the teacher has a system of shared meaning held by members that distinguishes the organization from other organizations that are well supported by action leaders' in the organization's activities to achieve the vision of the organization, and emphasizes the importance of vision it has set, so the steps from planning, implementation, monitoring and evaluation is a manifestation of the vision of the organization is good and has a set of characteristics, tendencies, and temperament (people) unique and relatively stable and significantly shaped by genetic factors / derivatives, social factors, culture and the environment and to influence attitudes and behavior of individuals is good, then the creativity of teachers will increase as well. Thus a teacher who has the organizational culture and a good personality with the support of principals who have visionary leadership will also enhance their creativity.

The results of this study indicated that organizational culture is a decisive factor in realization of purpose and mission of education. The school continues to encourage all citizens to work together to make changes for the better, innovate to create, renew and enhance the management of the organization in the school system. Visionary leadership also determines the success of the course in the school education system. Personality of a good teacher also determines the optimal interaction in the school environment. Thus it can be seen that the factor of organizational culture, visionary leadership, and a teacher's personality is an important thing that can be developed so that the value of teachers' creativity will also be increased, in order to achieve optimal educational purposes. However, the correlation coefficient is higher if the three variables, namely the organizational culture, visionary leadership and personality together with variable teacher's creativity, the correlation coefficient between organizational culture and leadership visionary $r_{1.2} = 0.403$, coefficient of

correlation between organizational culture and personality $r_{2.3} = 0.400$ and the correlation coefficient between the visionary leadership and personality $r_{1.3} = 0.393$. This implies that organizational culture, visionary leadership, and personality together is a factor to be able to achieve their creativity to the fullest.

Similarly, qualitative research based on the analysis of interview, observation and documentation in three public elementary school in Bogor, it is known that the tendency of a positive relationship between organizational culture, visionary leadership, and a teacher's personality together with the creativity of teachers. This suggests a strengthening of quantitative research results of testing the hypothesis that there is a functional relationship between organizational culture, visionary leadership and personality of the teacher with the creativity of teachers with the regression is significant and suggests that any increase in the score of organizational culture, visionary leadership, and a teacher's personality will improve creativity of teachers. The findings obtained in quantitative research phase of this can be seen that 42.30% teachers' creativity is the result of the workings of culture, visionary leadership and personality of the teacher together, so it can also be estimated at 57.70% was contributed by other variables that has a relationship with an increase in teachers' creativity. Based on interviews in qualitative study can be seen in addition to the factors of organizational culture, visionary leadership, and a teacher's personality, some of the factors thought to be associated with the creativity of teachers, among others: the school facilities and infrastructure, job satisfaction of teachers, the working environment of teachers, work discipline teachers, intellectual and emotional intelligence of teachers, teacher work commitment, achievement motivation and cultural factors teacher work, estimated to be related to contribute to improving teachers' creativity.

4. Conclusions

There is a significant positive relationship between organizational culture and creativity of teachers through the correlation coefficient of $r_{y1} = 0,400$ and determination coefficient $R_{y1}^2 = 0.1600$, with the regression equation $Y = 96.188 + 0.387 X_1$. This positive relationship is reinforced by the results of qualitative research. Thus it can be stated that the higher the culture of the organization, the higher the creativity of teachers.

1. There is a positive relationship with the visionary creativity of teachers through the correlation coefficient of $r_{y2} = 0.393$ and determination coefficient $R_{y2}^2 = 0.1544$, with the regression equation $Y = 96.515 + 0.390 X_2$. This positive relationship is reinforced by the results of qualitative research. Thus the higher the visionary leadership of the higher level of creativity of teachers.
2. There is a positive relationship with the creativity of the teacher's personality through the correlation coefficient of $r_{y3} = 0.370$ and determination coefficient $R_{y3}^2 = 0.1369$, with the regression equation $y = 102.344 + (0.362) X_3$. This positive relationship is reinforced by the results of qualitative research. Thus the higher the personality of the teacher, the higher the level of creativity of teachers.
3. Organizational culture, visionary leadership and

personality together with the creativity of teachers create correlation coefficient $r_{y.123} = 0.650$ and determination coefficient $R_{y.1.2.3}^2 = 0.423$ with a regression equation $y = 294.80 + (2,941) X_1 + (0.134) X_2 + (-2.239) X_3$. This relationship is reinforced by the results of qualitative research. Thus the higher the organizational culture, visionary leadership, teacher personalities together into a higher level of creativity teacher of teachers.

5. References

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