

The Relationship of Work Motivation and Creativity with The Performance of Science Teacher

Ade Sastrawijaya^{1*}

¹ Bachelor of Elementary School Teacher Education, Invada Institute of Education and Language, Cirebon, Indonesia

Received: November 30, 2022

Revised: January 17, 2023

Accepted: January 25, 2023

Published: January 31, 2023

Corresponding Author:

Ade Sastrawijaya

adesastrawijaya069@gmail.com

© 2023 The Authors. This open access article is distributed under a (CC-BY License)



DOI: [10.29303/jppipa.v9i1.2861](https://doi.org/10.29303/jppipa.v9i1.2861)

Abstract: This study describes the relationship between work motivation and work creativity of science teachers both individually and simultaneously with the performance of science teachers at Kejaksan Elementary School, Cirebon City. This study aims to determine the strength of the relationship between work motivation and creativity with the performance of science teachers both individually and collectively. The research method used was a survey method with respondents coming from science teachers and school principals. The number of samples is 40 subjects, using proportional random sampling. The analysis used is parametric statistics using correlation and simple regression, and multiple regression, at a significance level of 0.05. The results of the hypothesis test shows: 1) there is a positive and significant relationship between work motivation and the performance of science teachers, indicated by the correlation coefficient $r_{y1} = 0.37$ and the regression equation $Y = 108.3 + 0.191 X_1$, 2) there is a positive and significant relationship between teacher creativity and science teacher performance, indicated by the correlation coefficient $r_{y2} = 0.30$ and the regression equation $Y = 83.0 + 0.3852 X_2$, 3) there is a positive and significant relationship between work motivation and teacher work creativity together with Science teacher performance is shown through the correlation coefficient $r_{y1.2} = 0.54$ and the regression equation $Y = 59.05 + 0.16 X_1 + 0.4X_2$. Based on these findings, the performance of science teachers must be improved systematically by the teachers themselves, the leaders, and the institutions that handle them.

Keywords: Creativity; Motivation; Performance; Science Teacher

Introduction

This study aims to improve the performance a science teacher in the Kejaksan of Cirebon City in planning, implementing, and evaluating through efforts to increase teacher motivation and creativity. This is motivated by the performance of a science teacher that has not been maximized with indications: first, in lesson planning, they still use the old format, so there is no creativity. Second, 50% of teaching and learning activities are still teacher-centered so there is a lack of creativity in varied learning. Third, learning evaluation has not shown a comprehensive assessment, including an assessment of the learning process by implementing a class-based assessment system. Work motivation is related to performance as indicated by the correlation

coefficient $r_{y.1} = 0.531$ with the degree of strength of the "moderate" relationship and a contribution of 28.2% to employee performance (Maryani et al., 2021). Creativity has an average of 4.13 in increasing performance (Baba et al., 2018). Another benefit is to find new syntheses and indicators about the variables of work motivation, creativity, and performance so as to be able to update the characteristics of knowledge and the contribution of thinking to science, especially about performance and the variables that influence it.

Theoretical studies. Motivation is the need that drives a person to act (Terry, 1991; Robbins, 2001). in a certain way to achieve the desired goal (Bello, 2020); (Fitri and Dahlia, 2021). A person is motivated differently, but in general, they set a high priority to learn new things. (Chien et al., 2020). Human needs are

How to Cite:

Sastrawijaya, A. (2023). The Relationship of Work Motivation and Creativity with The Performance of Science Teacher. *Jurnal Penelitian Pendidikan IPA*, 9(1), 144–148. <https://doi.org/10.29303/jppipa.v9i1.2861>

physiological needs, the need for a sense of security, the need to have, the need for self-esteem and the need to actualize oneself (Adhari, 2021), intrinsic and extrinsic factors (Deci & Ryan, 2000); (Chang et al., 2021); (Bello, 2020). Work motivation as an influential and generating condition, directing and maintaining behaviors related to the work environment (Cormick, 1985), a set of energetic forces that originate both within as well as beyond an individual's being to initiate work-related behavior, and to determine its form, direction, intensity, and duration (Arendt, 2013), reflection of economic rewards, fear, hunger, and the urge to want to have more (Taylor, 1911). Its measurements include internal and external factors of individuals and organizations (Kanfer R., Chen G., 2008), covering three subdimensions such as intrinsic motivation, three types of extrinsic motivation (identified, introjected, and external), and amotivation related to three work roles (administrative, instructional, and informative leadership) (Ata, 2021), (Ata, 2021), the relationship of performance and reward, the relationship of reward and personal purpose (Vroom, 1964), organizing motivation to increase the interest of workers in the growth of productivity. (Sagituly & Guo, 2021)

Creativity is defined as the originality of processes, products, or ideas for the creation of creativity and usefulness in the form of emotional value or can be a pragmatic value or the effectiveness of product design (Runco & Jaeger, 2012), important in an organization (Ramadani, 2021), involving people, processes, environments, and products (Richardson & Mishra, 2018), surprise, aspiration, process, openness of unusual and effective combinations, own experimentation, risk-taking state of mind, personal vision, self-expression, problem solving, dreaming of something resourceful, wondering (making something out of nothing), combinations/ideas/images, effects, making things up (Perry & Collier, 2018). many ideas, flexibility, authenticity, decipherment, reformulation (Runco&Jaeger, 2012), mental agility, thinking in all directions, conceptual flexibility, originality, more favoring complexity rather than simplicity, proficiency in many things (Mangunhardja, 2001), the existence of quantitative processes i.e. inductive-deductive processes; explicit links to instructional practices or learning environments as well as qualitative processes i.e. cognitive and aesthetic and flow conditions; proses, products, and creative judgments (Katz-Buonincontro & Anderson, 2020). Creativity in education, especially teachers, can be shown through the practice of supporting creativity, namely explicitly teaching to think creatively, providing opportunities for choice and discovery, encouraging intrinsic motivation of students, provide opportunities for students to use their imagination while learning (Beghetto & Kaufman, 2014),

generate ideas, suggest alternative solutions, or validate solutions. (Patston et al., 2021).

Performance is interpreted as the whole for the work of a person, the level of achievement of the implementation of a program of activities or policies in realizing the goals, objectives, vision and mission of the organization as outlined through the strategic planning of an organization (Adhari, 2021). Organizational goals to be achieved as a means of measuring their achievement in performance require employee work involvement (Sastrawijaya et al., 2019), Two criteria to determine performance are by looking at and measure the efficiency and effectiveness of its work so that it can identify, evaluate, plan, and develop individual performance (Chien et al., 2020). Aspects of performance appraisal related to teachers in the form of cooperation, responsibility, discipline, attitude, creativity, honesty, initiative, reliability, loyalty, leadership. This aspect is associated with teachers in accordance with their main duties and functions (Hasibuan, 2012), compiling learning programs/plans, their implementation and evaluation (Masrum, 2021), planning learning and its implementation (Runtifasih, 2021).

The purpose of this study was to determine the strength of the relationship between work motivation and creativity with performance a science teacher both partially and jointly.

Method

This study used a survey method with a correlational approach. The stages of this research are as follows.

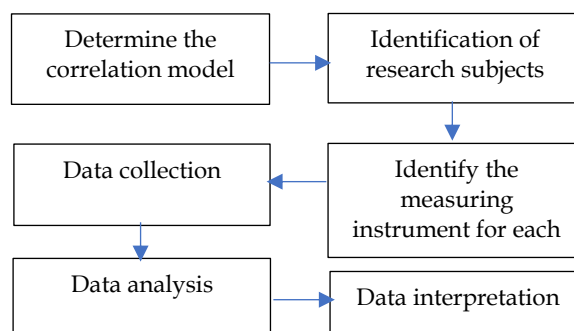


Figure 1. Research stages chart

The stage of determining the model is to determine the correlation between work motivation and creativity with performance a science teacher both partially and together. The identification stage of the research subjects was to determine the population, namely elementary school science teachers in the Kejaksan of Cirebon City, totaling 152 people. The research sample was taken using a proportional random sampling technique, namely as many as 40 people. The identification stage of

measuring instruments for each variable is the measurement of work motivation, creativity, and performance using a Likert scale of 1-5. The data collection stage is by using a questionnaire technique which will provide data to researchers related to thoughts, feelings, attitudes, beliefs, values, perceptions, personality and behavior of participants or respondents to the variables studied. The data analysis stage is using descriptive statistics and inferential statistics to prove the hypothesis that there is a relationship between work motivation and teacher creativity with performance a science teacher both partially and simultaneously. The data interpretation stage is associating the relationship between variables using a hypothesis between being accepted or rejected so that it has the ability to explain the existence of research phenomena in depth and based on facts and available information.

Result and Discussion

The results obtained from this study are: 1) there is a positive and significant relationship between work motivation and performance a science teacher, indicated by the correlation coefficient $r_{y_1} = 0.37$ and the regression equation $Y = 108.3 + 0.191 X_1$, 2) there is a positive and significant relationship between teacher creativity and performance a science teacher, indicated by the correlation coefficient $r_{y_2} = 0.30$ and the regression equation $Y = 83.0 + 0.3852 X_2$, 3) there is a positive and significant relationship between work motivation and teacher work creativity together with performance a science teacher shown through the correlation coefficient $r_{y_{1.2}} = 0.54$ and the regression equation $Y = 59.05 + 0.16 X_1 + 0.4X_2$.

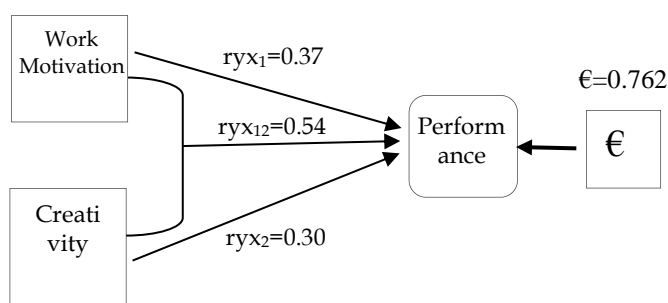


Figure 2. Empirical Model Relations

Overall, the results of this study show that there is a positive relationship between: 1) work motivation and performance a science teacher, 2) teacher creativity and performance a science teacher, 3) work motivation and teacher creativity together with performance a science teacher. Taking into account the form of the relationship between free variables and bound variables in the form of functional relationships, performance a science

teacher is the result of the work motivation and creativity variables of teachers.

The Relationship between Work Motivation and performance a science teacher

The functional relationship between work motivation and performance a science teacher means that the higher the level of work motivation intensity, the higher the level of performance of the teacher in carrying out his duties as an executor of the duties of a teacher. The strength of the relationship between work motivation and performance a science teacher is shown by the correlation coefficient $r_{y_1} = 0.3733$ and the coefficient of determination $r^2_{y_1} = 0.1394$, indicating that 13.94% of performance a science teacher can result from the presence of work motivation variables.

The performance model described by Porter and Lawyer that performance will be contributed by individual boost factors. The impulses that arise are supported by the ability, needs and nature of the individual and his perception of the task at hand will shape his performance. Performance will be returned to its original expectations when it comes to work and is associated with its perception of the effort that will be received. The performance performed will give it an intrinsic and extrinsic reward. This reward is adjusted to the reward at the beginning, if appropriate, you will feel satisfied. Satisfaction will give a boost back to motivation.

From this kind of thinking, it is clear that work motivation contributes to improving performance. Coupled with performance a science teacher, the teacher's work motivation in which there is a desire to work as well as possible. Work motivation will improve its performance. The higher the teacher's work motivation, the higher the performance a science teacher.

The Relationship between Teacher Activity and performance a science teacher

The functional relationship between teacher creativity and performance a science teacher means that the higher the teacher's creativity in carrying out his duties, the better the performance a science teacher will be. The strength of the relationship between the variables of teacher creativity and performance a science teacher is shown through the correlation coefficient $r_{y_2} = 0.3004$. Based on the correlation coefficient, the determination is $r^2_{y_2} = 0.0900$. This means that 9.00% of teachers can be explained through the teacher's creativity variable.

Creative people according to Campbell are mental-thinking from all directions. Because the teacher in carrying out his teaching task is not facing inanimate objects, but facing students who will continue to change

and develop, teachers are certainly required to be creative. Moreover, the students are elementary school age children, which at this age is the laying of the foundation of thinking and intellectuals. With the creativity of the teacher, it will encourage students to be creative as well.

The demands of the task must be anticipated with creativity. Work that is only fixated by circumstances then if it encounters difficulties will stop halfway, but if it is creative by looking for various possible steps to complete, then it can be overcome properly. Creativity can improve performance a science teacher.

The Relationship between Work Motivation and Teacher Creativity Together with Performance a science teacher

Based on the results of data analysis on the strength of the relationship between free variables and bound variables, it can be described that the strength of the relationship between variables X_1 and Y , X_2 with Y and the relationship together shows the strength of positive relationships.

The relationship together between the variables of work motivation and teacher creativity with performance a science teacher in terms of relationship strength has a correlation coefficient $r_{y_{12}} = 0.38756$. Based on the double correlation coefficient, it can be seen that the coefficient of determination is $r^2_{y_{12}} = 0.1502$. With this coefficient, it can be concluded that 15.02% of performance a science teacher is explained through the variables of work motivation and teacher creativity.

Work motivation as a strong encouragement in carrying out their work tasks properly must be supported by creativity. Creativity is created by the drive to solve problems in the work. So, motivation and creativity are mutually supportive to solve work problems. Because they support each other, then if both are good, the work will be better. This means that its performance will also improve.

This research has been pursued and implemented seriously by devoting all efforts and efforts to achieve maximum results. However, because of the limitations of researchers, researchers are aware of shortcomings. In this case the researcher needs to explain some studies as follows.

First, with regard to the instrument as a data collector, in this case the use of questionnaires of a closed nature, is not fully able to reveal the true state of affairs in the respondent. However, researchers anticipate this by discussing the instrument with peers, so that the instrument continues to be manipulated in order to reveal the real respondent.

Second, the large number of research samples. Researchers are fully aware that the limited number of samples will affect the results of the analysis and drawing conclusions. This is solely due to the limited

energy, time and funds available. To overcome this, researchers conduct random sampling in accordance with the provisions, so that the sample can be said to be representative, which can be used to generalize the research.

Conclusion

There is a positive and significant relationship between work motivation and performance a science teacher. The strength of the relationship between the two is indicated by the correlation coefficient $r_{y_1} = 0.3733$, there is a positive and significant relationship between teacher creativity and performance a science teacher. The strength of the relationship between the two is indicated by a correlation coefficient of $r_{y_2} = 0.30$, there is a positive and significant relationship between work motivation and teacher work creativity together with performance a science teacher. The two go hand in hand, which means that the higher the teacher's work motivation and creativity, the higher the performance a science teacher. The degree of relationship between the two is indicated by the correlation coefficient $r_{y_{1.2}} = 0.3875$.

References

- Adhari, I. Z. (2021). *Optimalisasi Kinerja Karyawan Menggunakan Pendekatan Knowledge Management & Motivasi Kerja*. Pasuruan: CV.Penerbit Qiara Media.
- Arendt, S. W. (2013). The Correlation Between Work Motives and Organizational Behaviors for Hospitality Employees. *ProQuest Dissertations and Theses*, 8. Retrieved from https://search.proquest.com/docview/1500845625?accountid=11526%0Ahttp://rc4ht3qs8p.search.serialssolutions.com?ctx_ver=Z39.88-2004&ctx_enc=info:ofi/enc:UTF-8&rft_id=info:sid/ABI%2FINFORM+Collection&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&rft.genre=d
- Ata, E. (2021). Development and Validation of the School Administrators' Work Motivation Scale (SAWMS). *International Online Journal of Educational Sciences*, 13(5), 1310-1324. <https://doi.org/10.15345/iojes.2021.05.002>
- Baba, S., Omwenga, J., & Mung'atu, J. (2018). Relationship Between Creativity and Performance of Small and Medium Enterprises In Nigeria. *Journal of International Business, Innovation and Strategic Management*, 2(3), 1 -. Retrieved from https://www.jibism.org/core_files/index.php/JI-BISM/article/view/65
- Beghetto, R. A., & Kaufman, J. C. (2014). Classroom contexts for creativity. *High Ability Studies*, 25(1),

- 53-69.
<https://doi.org/10.1080/13598139.2014.905247>
- Bello. (2020). Proprietor Incentives And Supervision As Correlates Of Secondary School Science, Social Sciences And Humanity Teachers' Work Motivation In Ilorin Metropolis, Nigeria. In *Journal Plus Education* (Issue 2). Retrieved from https://www.academia.edu/en/74394832/Proprietor_Incentives_and_Supervision_as_Correlates_of_Secondary_School_Science_Social_Sciences_and_Humanity_Teachers_Work_Motivation_in_Ilorin_Metropolis_Nigeria
- Chang, K. C., Hsu, Y. T., Cheng, Y. S., & Kuo, N. Te. (2021). How work engagement influences relationship quality: the roles of work motivation and perceived service guarantee strength. *Total Quality Management and Business Excellence*, 32(11-12), 1316-1340.
<https://doi.org/10.1080/14783363.2019.1700107>
- Chien, G. C. L., Mao, I., Nergui, E., & Chang, W. (2020). The effect of work motivation on employee performance: Empirical evidence from 4-star hotels in Mongolia. *Journal of Human Resources in Hospitality and Tourism*, 19(4), 473-495.
<https://doi.org/10.1080/15332845.2020.1763766>
- Cormick, E. J. M. (1985). *Industrial Psychology*. New York : Prentice-Hall.
- Deci & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268. Retrieved from https://www.academia.edu/24470501/The_What_and_Why_of_Goal_Pursuits_Human_Needs_and_the_Self_Determination_of_Behavior
- Fitri, Y., & Dahlia, P. (2021). *Manajemen Bisnis*. Bandung:Widina Bhakti Persada.
- Hasibuan, M. (2012). *Manajemen Sumber Daya Manusia*. Jakarta : Bumi Aksara.
- Kanfer R., Chen G., & P. R. D. (2008). *Work motivation: Past, present, and future*. New York: Taylor & Francis.
- Katz-Buonincontro, J., & Anderson, R. C. (2020). A Review of Articles Using Observation Methods to Study Creativity in Education (1980-2018). *Journal of Creative Behavior*, 54(3), 508-524.
<https://doi.org/10.1002/jocb.385>
- Mangunhardja, A. (2001). *Mengembangkan Kreativitas*. Yogyakarta: Kanisius.
- Maryani, Y., Entang, M., & Tukiran, M. (2021). The Relationship between Work Motivation , Work Discipline and Employee Performance at the Regional Secretariat of Bogor City (disiplin kerja). *International Journal of Social and Management Studies (IJOSMAS)*, 02 No. 02(02), 1-16.
<https://doi.org/https://doi.org/10.5555/ijosmas.v2i2.14>
- Masrum. (2021). *kinerja guru profesional*. Purbalingga: Eurika Media Aksara.
- Patston, T. J., Kaufman, J. C., Cropley, A. J., & Marrone, R. (2021). What Is Creativity in Education? A Qualitative Study of International Curricula. *Journal of Advanced Academics*, 32(2), 207-230.
<https://doi.org/10.1177/1932202X20978356>
- Perry, M., & Collier, D. R. (2018). What Counts as Creativity in Education? An Inquiry into the Intersections of Public, Political, and Policy Discourses. *Canadian Journal of Education*, 41:1. Retrieved from www.cje-rce.ca
- Ramadani, I. (2021). *Perilaku Organisasi* (Esther Kembauw (ed.)). Bandung:Widina Bhakti Persada.
- Richardson, C., & Mishra, P. (2018). Learning environments that support student creativity: Developing the SCALE. *Thinking Skills and Creativity*, 27, 45-54.
<https://doi.org/10.1016/j.tsc.2017.11.004>
- Robbins, S. P. (2001). *Prilaku Organisasi* (Hadyana Pujatmaja (ed.)). Prehallindo.
- Runco, M. A., & Jaeger, G. J. (2012). The Standard Definition of Creativity. *Creativity Research Journal*, 24(1), 92-96.
<https://doi.org/10.1080/10400419.2012.650092>
- Runtifasih. (2021). *Jurus Jitu Meningkatkan Kinerja Guru*. Purbalingga: Eurika Media Aksara.
- Sagituly, G., & Guo, J. (2021). The influence of work motivation on organizational commitment among civil servants of Kazakhstan: Analyzing the mediating role of job satisfaction. *Lex Localis*, 19(3), 543-567.
[https://doi.org/10.4335/19.3.543-567\(2021\)](https://doi.org/10.4335/19.3.543-567(2021))
- Sastrawijaya, A., Retnowati, R., Hardhienata, S., & Arifin, M. Z. (2019). Sequential Exploratory Organization Analysis Citizenship Behavior Paud Teacher In Cirebon City. *Opcion:Journal of Human and Social Sciences*, 35, 2899-2921. Retrieved from <https://produccioncientificaluz.org/index.php/opcion/article/view/32467>
- Taylor, F. (1911). *The Principles Scientific Management*. New York-Hrrper.
- Terry, G. R. (1991). *Prinsip Prinsip Manajemen*. Bumi Aksara.
- Vroom, V. H. (1964). *Work and Motivation*. New York : John Wiley.