

BUILDING TEACHERS' CREATIVITY IN LEARNING DEVELOPMENT THROUGH TRANSFORMATIONAL LEADERSHIP AND KNOWLEDGE SHARING IN THE PANDEMIC ERA IN STATE ELEMENTARY SCHOOLS IN THE EAST JAKARTA REGION

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ABSTRACT

Efforts to increase teacher creativity impact students, especially in improving students' thinking skills to be creative. This study explains teachers' creativity in teaching during the covid 19 pandemic. This study uses a quantitative method that explains the relationship between variables using Structural Equation Modeling Partial Least Square (SEMPLS) based on variance. Respondents in this study were Madrasah teachers in West Java-Indonesia using an online survey. The results of this study indicate that transformational leadership and knowledge sharing influence teacher creativity. In the end, this study provides input for schools to give full attention to these variables in increasing teacher creativity, which can increase student creativity.

Keywords: Creativity, Transformational Leadership, Sharing Behavior

INTRODUCTION

In 2020 the whole world was hit by a global pandemic, namely the emergence of the coronavirus disease 2019 (COVID-19), infecting most of the world, including Indonesia. This virus is dangerous because it spreads quickly and causes more severe infections in human organs. With the COVID-19 pandemic, the order of people's lives has undergone various changes, one of which is a change in the field of education, which is done face-to-face, currently being done online.

The change from face-to-face learning to online learning requires careful preparation. The changes teachers must prepare are lesson plans, identifying essential materials, methods to be carried out, and learning outcomes assessment. Teachers must make these changes because education requires professional management in that it is managed in a systemic, comprehensive, sustainable manner and involves all stakeholders.

Creativity is critical in education because it is related to teaching to improve student competence. Many studies show that when teachers do creative thinking, it will encourage students to do something creative. Creative teaching carried out by teachers is a significant way to generate creativity for the students themselves.

With the online learning system, educational institutions such as schools must be able to utilize network technology and information technology to support learning. However, online learning is not as easy as imagined. However, many obstacles were found, such as the limitations of students, parents in using and accessing online learning media with laptops or smartphones, weak internet network, high quota fees, and not The focus is on parents accompanying and supervising their children in online learning in their respective homes.

In the online learning system, the position of creative teachers is essential. In this context, there are three criteria for creative teachers: first, always do creative thinking by using various approaches to create ideas or ideas. Second, make new things to generate valuable ideas. Third, teachers formulate, refine, analyze, and evaluate their ideas (Piirto, 2011). According to Lawrence (2015), a teacher can be said to be creative by doing work professionally, acting on knowledge and intuition, carrying out, doing and producing the best possible work, emphasizing processes, not results, and always making developments in learning.

Teachers, as the center of student behavior change (students), are required to have the ability to provide the best service to students because teachers are "agents of behavioral change," "agents of cultural transmission," and "agents of the next generation shaper." Thus, teachers are expected to prepare well and develop their creativity in planning, implementing, evaluating, and developing educational activity programs in order to be able to produce quality education that meets expectations. To achieve this, schools must have a professional management system that involves various elements of education stakeholders and supports the professional development of teachers, students, and the community. In fact, in the future, schools will become essential because they must have professional, institutional capacity. This is in line with the 21st-century learning concept, which states that teachers must have four competencies, namely, (Communication Skills, Critical Thinking, Problem-Solving Skills, Creativity and Innovation, and Collaboration) (Tavis D. Jules & Kelly Sundberg, 2018).

The form of teaching meant by the teacher with his creativity can develop and improve students' creative thinking and behavior so that students know what competencies they have. One way to develop and improve student creativity is that the teacher must be able to find student creativity first. The same thing was expressed (Tran et al., 2016) in the results of research that stated teacher creativity and related to pedagogy, namely teaching for creativity.

Many factors can affect teachers' creativity, both internal and external factors. As revealed by (Robbins & Judge, 2017) states that one of the factors that can influence creativity is transformational leadership, which positively affects creativity. In addition, a leader needs to pay attention to factors that can reduce creativity. This follows the results of previous studies, which state that transformational leadership has a positive and significant effect on teacher creativity. The results of this study confirm that transformational leadership is one of the essential variables that can influence and increase the creativity of teachers and students. In addition to leadership influencing creativity, another factor is sharing behavior; this is stated by (Dong et al., 2017), suggesting ways to increase creativity through developing individual skills and sharing team knowledge.

According to (Son et al., 2017), in their research, it is stated that to increase creativity, one of them is to be mediated by knowledge sharing carried out by a leader to his members. The same thing was also expressed by (Cabrera et al., 2005); sharing knowledge is not only related to creativity but can create new or innovative ideas. Based on this narrative, teachers must be creative and continue to show the dedication that is much needed in the current pandemic situation so that the learning process runs optimally; why creativity and dedication

are needed because it will be challenging to provide the best learning process for children without the creativity and dedication of teachers in the learning process itself.

Specifically, this study aims to describe creativity influenced by transformational leadership and knowledge sharing in the pandemic era at State Elementary Schools in the East Jakarta Region. The unit of analysis is the Principal and SDN Teachers (as respondents). The population includes 429 teachers from the sample determined based on the solving formula totaling 210 selected randomly using a data collection instrument in the form of a questionnaire. Analyzed with path analysis techniques (Path Analysis) and SEM calculations to achieve research results in the form of a description of creativity, transformational leadership, and knowledge-sharing behavior.

Methods

This research uses a quantitative approach with survey methods, path analysis techniques (Path Analysis), and calculations using Structural Equation Modeling (SEM). Variables in path analysis consist of exogenous and endogenous variables. In this study, exogenous variables consist of transformational leadership (X1) and knowledge sharing (X2). The endogenous variable is creativity (Y). The three variables are thought to affect each other. The influence between the three variables can be described in the research constellation as follows:

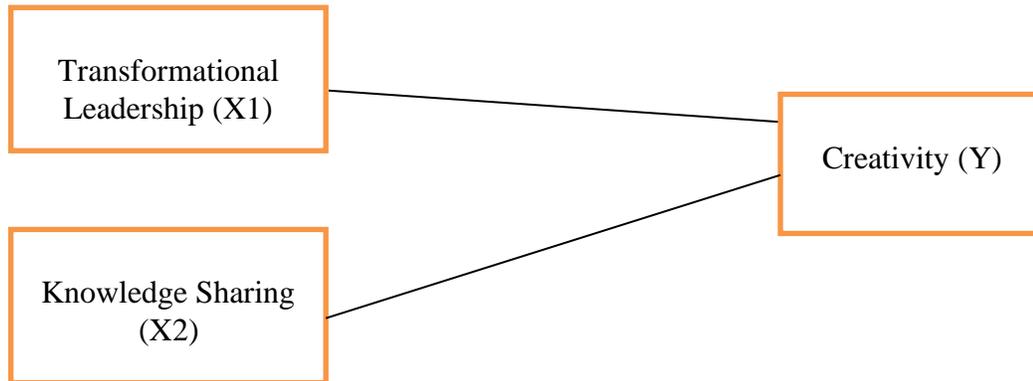


Figure: Intervariable Model

Based on the picture above, it is known that the inter-variable model is designed to determine; (1) The effect of transformational leadership on creativity, (2) The effect of knowledge sharing on creativity, (3) The effect of transformational leadership on sharing behavior. Data analysis techniques used are descriptive statistical techniques and parametric inferential statistics, with Structural Equation Modeling (SEM), and through descriptive statistics, the data can be seen in frequency distribution tables and histograms. Meanwhile, through parametric inferential statistics, the standard deviation and variance will be seen as well as the data distribution in the histogram frequency distribution table. Before testing the hypothesis, a normality test was first performed using the Lilifors technique. Then performed regression analysis, regression significance test, and regression linearity test. Data analysis for hypothesis testing was carried out using path analysis techniques, namely the established techniques, to explain the influence between research variables.

RESULTS AND DISCUSSION

Transformational Leadership Research on Creativity. Knowledge sharing is a systematic process of sending, distributing, and disseminating knowledge from a person or group to people or those who need it using various media. Knowledge sharing is included in the management category that essentially provides opportunities for members of the organization to broadly continue to learn and learn to all so that they can improve their competencies independently.

The implementation of various knowledge is an effort to meet the needs of global market competition and the development of information technology. In the 21st century, the success of an organization depends on the sharing behavior carried out within the organization. Knowledge sharing is carried out because everyone has different knowledge from one another so that the organization continues to run dynamically; the members of the organization must share knowledge because it will generate creative ideas from fellow members.

This was stated by (Dong et al., 2017), suggesting ways to increase employee creativity through individual skill development and team knowledge sharing. According to (Son et al., 2017), in the results of their research, it is stated that to increase creativity, one of them is mediated by knowledge sharing carried out by a leader to his members. The same thing was also expressed by (Cabrera et al., 2005); sharing knowledge is not only related to creativity but can create the creation of new knowledge or innovative ideas.

Transformational Leadership Against Knowledge Sharing. Much of the literature states that the concept of transformational leadership is a process in which followers and leaders elevate each other to a higher level of motivation and morality. Leaders try to raise awareness of their followers by appealing to ideals and moral values like humanity, peace, equality, justice, and freedom are not based on emotions like hatred, jealousy, greed, and fear.

Furthermore, many experts also define transformational leadership in terms of its effect on followers: they feel respect, loyalty, admiration, and trust in their leaders. In addition, followers tend to act beyond their expectations. Researchers suggest that leaders motivate and transform followers by (1) activating their higher levels of needs, (2) encouraging their self-interest for the team and organizational advancement (3) making followers more aware of the importance of individual goals. In transformational leadership, followers are motivated by the leader to improve their performance.

The implementation of transformational leadership is not only limited to increasing the interest of members in achieving organizational goals but must share knowledge, and this is to support members in participating in contributing to the organization. This is in line with the results of research which states that there is a relationship between transformational leadership and knowledge sharing.

This illustrates that leaders who have foresight will always do their best and to maintain the sustainability of their organization, one way is by sharing knowledge with fellow members of the organization (Mihardjo et al., 2019).

The same thing is also expressed in the results of the study which states that the relationship between transformational leadership and knowledge sharing shows a significant correlation. This influence is based on the behavior of a leader with a charismatic leadership approach, inspirational motivation, individual consideration and intellectual stimulation (RS-J. Lin & Hsiao, 2014).

Based on the narrative above, the statistical hypothesis The hypothesis testing in this study is as follows:

1. Statistical hypothesis 1 $H_0: \beta_{y1} \leq 0$ $H_1: \beta_{y1} > 0$ 1=Transformational Leadership (X1) has a direct effect on Creativity (Y)

2. Statistical hypothesis 2 $H_0: \beta_{y2} \leq 0$ $H_1: \beta_{y2} > 0$ 2= Knowledge sharing (X2) has a direct effect on Creativity (Y)

3. Statistical hypothesis 3 $H_0: \beta_{y3} \leq 0$ $H_1: \beta_{y3} > 0$ 3= Transformational Leadership (X1) has a direct effect on various knowledge (X2)

The first hypothesis, there is a direct influence of transformational leadership (X1) on creativity (Y). From the calculation results between the positive direct effect of transformational leadership on creativity ($\beta_{direct} = 0.187$, p

Second hypothesis, there is a positive direct effect of various knowledge (X2) on creativity (Y). From the calculation results between the positive direct effect of transformational leadership on creativity ($\beta_{direct} = 0.383$, p

Third hypothesis, there is a direct effect of transformational leadership (X1) on various knowledge (X2). From the calculation results between the positive direct influence of transformational leadership on creativity of ($\beta_{direct} = 0.273$, p

Transformational Leadership Affects Creativity

After calculating with the help of SEM and statistical analysis, it shows that there is a direct influence of transformational leadership on creativity. The results of this calculation show ($p_{direct} = 0.187$, <0.01), it can be concluded that transformational leadership has a direct and significant influence to creativity. The results of these calculations regarding the transformational leadership variable on creativity. The results of these calculations regarding the transformational leadership variable on creativity have an influence. This is supported by (Gumusluoglu & Ilsev, 2009) which says that transformational leadership affects creativity.

In addition, Teymournejad & Elghaei, (2017), states that a person who carries out transformational leadership can be implemented by motivating his members, this can develop creativity, so that they can contribute in the form of suggestions, ideas and new solutions with the aim of improving their organization. According to (Gunduz et al., 2016) states that there is an influence between inspirational motivation, ideal influence and individual creativity.

In this study, transformational leadership has three indicators, namely: first, inspirational motivation with sub indicators providing motivation and providing hope. Second, intellectual stimulation with sub-indicators provides challenges and provides training. Third, the ideal influence with sub-indicators gives influence and provides an example. While creativity has indicators, namely: first, originality of ideas with sub indicators providing ideas and conducting exploration. Second, thinking with the sub-indicator has curiosity and freedom and third, fluency in thinking with the sub-indicator having imagination and being open to new things.

1. The direct effect of inspirational motivation is not significant on the originality of the idea, this can be known by the SEM calculation ($\beta_{direct} = 0.121$, $p > 0.05$).
2. The direct effect of inspirational motivation is not significant on independent thinking ($\beta_{direct} = 0.000$, $p > 0.05$).
3. The direct effect of inspirational motivation is not significant on fluency of thinking ($\beta_{direct} = 0.121$, $p > 0.05$)
4. The direct effect of intellectual stimulation was not significant on the originality of the idea ($\beta_{direct} = -0.027$, $p > 0.05$).
5. The direct effect of intellectual stimulation is not significant on independent thinking ($\beta_{direct} = 0.014$, $p > 0.05$)

6. The direct effect of intellectual stimulation was not significant on fluency in thinking ($\beta_{\text{direct}} = -0.016, p > 0.05$).
7. The direct effect of the ideal effect is not significant on the originality of the idea ($\beta_{\text{direct}} = 0.110, p > 0.05$).
8. The direct effect of the ideal influence is significant on independent thinking ($\beta_{\text{direct}} = 0.186, p < 0.05$).
9. The direct effect of ideal influence is not significant on fluency of thinking ($\beta_{\text{direct}} = 0.088, p > 0.05$).

The results of the data above show that the indicators of inspirational motivation, intellectual stimulation and ideal influence are not significant on the originality of ideas, fluency of thinking and independent thinking. This can be interpreted as a principal who motivates teachers to increase their creativity and does not have a strong influence on the creation of originality of ideas, independent thinking and fluency in thinking. This can be due to the motivation given by the principal to the teachers does not inspire or interest the teacher in doing creativity. This is stated by (John R. Schermerhorn et al., 2010), which states that transformational leadership occurs when the leader can move and grow the interest of organizational members towards organizational goals.

From the explanation above, if a leader only provides motivation, intellectual stimulation and gives influence to the teachers, it will not arouse creativity, because the teachers do not know what the process is for. So, a school principal to increase the creativity of teachers by means of a leadership approach must be accompanied by an explanation to the teachers of the principal's intention to provide motivation, stimulation and the ideal influence. This can be done by providing an explanation of the school's vision and mission, building a joint commitment to carry out the vision and mission, making strategies in carrying out the vision and mission and always communicating the vision and mission.

In addition, according to (Jyoti & Dev, 2015) that transformational leadership affects creativity if it is accompanied by a learning orientation. They emphasize that the application of transformational leadership will encourage members to be able to think differently, generatively and exploratory which produces more solution and creative ideas. However, to generate these thoughts, a leader using transformational leadership must be accompanied by a learning orientation.

This learning orientation emphasizes a leader providing opportunities to learn for his subordinates to be able to do something that can make a contribution to the organization. In this case, a leader does not limit his members to be able to develop their competence. Apart from that, leaders who emphasize this learning orientation can make organizational members commit to continue learning, keep their minds open, can share knowledge among others in the organization and can unify the understanding of the vision together to achieve organizational goals.

In addition, the principal must provide an example or example to teachers regarding the development of creativity so that teachers can follow. Furthermore, the principal must have good self-confidence, full of confidence and not in doubt about what he does. If a school principal does not have such characteristics, how can these values be followed by teachers. A good leader is a leader who always provides direction, guidance and example to its members. The value is intended to increase the creativity of teachers in learning.

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Transformational Leadership Affects Knowledge Sharing

After performing calculations with the help of SEM and statistical analysis, it shows that there is a direct effect of transformational leadership on knowledge sharing. The results of this calculation show ($\beta_{\text{direct}} = 0.273$, $p < 0.001$). So it can be concluded that transformational leadership has a significant direct effect on knowledge sharing.

The results of these calculations regarding the variable sharing of transformational leadership on knowledge sharing have an influence, these results are in accordance with the results of research from (Mihardjo et al., 2019) which illustrates that leaders who have foresight will always do their best and to maintain the sustainability of their organization, One way is to share knowledge with fellow members of the organization.

Furthermore, according to (RS-J. Lin & Hsiao, 2014) states that the relationship between transformational leadership and knowledge sharing shows a significant correlation. The influence is based on the behavior carried out by a leader with a charismatic leadership approach, inspirational motivation, individual consideration and intellectual stimulation.

The indicators in this study, transformational leadership has three indicators, namely: first, inspirational motivation; second, intellectual simulation; third, the ideal influence. Meanwhile, knowledge sharing has three indicators, namely: first, disseminating ideas/information. Second, expressing ideas through formal interactions. Third, communicating ideas/information through interaction.

When viewed from the three transformational leadership indicators, namely inspirational motivation, intellectual stimulation and the ideal influence of transformational leadership variables on knowledge sharing indicator variables, namely disseminating ideas/information, expressing ideas through formal interactions and communicating ideas/information through the following interactions:

1. The direct effect of inspirational motivation is not significant on disseminating ideas ($\beta_{\text{direct}} = 0.117, p > 0.05$),
2. The direct effect of inspirational motivation is significant on expressing ideas ($\beta_{\text{direct}} = 0.190, p < 0.05$),
3. The direct effect of inspirational motivation is not significant on communicating ideas ($\beta_{\text{direct}} = 0.010, p > 0.05$);
4. The direct effect of intellectual stimulation was not significant on disseminating ideas ($\beta_{\text{direct}} = 0.054, p > 0.05$),
5. The direct effect of intellectual stimulation was not significant on expressing ideas ($\beta_{\text{direct}} = -0.036, p > 0.05$),
6. The direct effect of intellectual stimulation was significant on communicating ideas ($\beta_{\text{direct}} = 0.191, p < 0.05$);
7. The direct effect of ideal influence is not significant on spreading ideas ($\beta_{\text{direct}} = 0.080, p > 0.05$)
8. The direct effect of ideal influence is not significant on expressing ideas ($\beta_{\text{direct}} = 0.046, p > 0.05$),
9. The direct effect of ideal influence is not significant on communicating ideas ($\beta_{\text{direct}} = 0.074, p > 0.05$)

The results of the data above show that the indicators of transformational leadership are inspirational motivation, intellectual stimulation, ideal influence on variable indicators. , communicating ideas/information through interaction is significant.

Furthermore, there are several indicators of transformational leadership on indicators of knowledge sharing that are not significant such as indicators of inspiration motivation not significant for disseminating ideas, inspirational motivation is not significant for communicating ideas, intellectual stimulation is not significant for disseminating ideas, intellectual stimulation is not significant for expressing ideas, ideal influence not significant for disseminating ideas, the ideal effect is not significant for expressing ideas, the ideal effect is not significant for communicating ideas. The correlation of the two indicator variables shows that the results are not significant, but they still have an influence and are related to each other.

The results of the insignificant influence, of course, can be caused by various factors behind the sharing of knowledge. The concept of leadership is focused on providing inspiration and motivation to organizational members in achieving organizational goals. Leadership can be the ability possessed by a person to influence, motivate, inspire members of the organization in an effort to achieve organizational goals.

Organizations can be successful in achieving their goals, depending on the leadership approach taken by organizational leaders. Furthermore, there are many approaches to organizational leadership, one of which is transformational leadership. According to (George & Jones, 2012), transformational leadership is leadership that inspires members to be able to trust the leader.

According to (Griffin & Moorhead, 2014), transformational leadership is a person's ability to lead who can lead and make changes based on the vision and mission of the organization. Furthermore, according to George & Jones, the basic concept of transformational leadership has three concepts, namely: 1) Leaders who can increase organizational members'

awareness of the importance of their duties; 2) Leaders who can help organizational members become aware of their need for growth, development; 3) Leaders who can motivate their members to work for the benefit of the organization.

The concept of leadership according to George & Jones emphasizes how a leader can inspire, motivate and build awareness to its members to be able to develop personally and organizationally, so as to increase the participation of members of teachers to be able to share knowledge. The same thing was stated by Griffin & Moorhead, stating that a leader must recognize the need for future changes in the organization and be able to guide its members to be able to achieve organizational goals.

Therefore, he calls knowledge sharing a process of exchanging information and based on that information, new knowledge is created by the recipient of the information. The concept shows that sharing, everyone who will do knowledge must know what is shared, why it should be shared, how to share it, and what media is used to share it, and with whom it is shared.

CONCLUSION

Based on the analysis and discussion that has been described in the previous chapter, the conclusions of this study are:

First, Based on the results of the analysis and discussion, this study can be concluded that there is a direct and positive effect of transformational leadership on teacher creativity. These results are based on the findings of the research that has been done. The influence of transformational leadership on creativity can be seen from three indicators, namely ideal influence, inspirational motivation, intellectual stimulation. Based on the findings of this study, the three indicators have an influence on creativity. Thus, in an effort to increase teacher creativity, school principals must carry out transformational leadership with indicators of inspirational motivation, intellectual stimulation.

Second, based on the results of the analysis and discussion, this research can be concluded that there is a direct and positive effect of sharing knowledge on teacher creativity. These results are based on the findings of the research that has been done. The effect of knowledge sharing on creativity can be seen from three indicators, namely disseminating ideas/information, expressing ideas through formal interactions, and communicating ideas/information through interactions. Based on the findings of this study, the three indicators have an influence on creativity. Thus, in an effort to increase teacher creativity, school principals must carry out various indicators of knowledge sharing.

Third, based on the results of the analysis and discussion, this research can conclude that transformational leadership has a direct and positive effect on knowledge sharing. These results are based on the findings of the research that has been done. The influence of transformational leadership on knowledge sharing can be seen from three indicators, namely ideal influence, inspirational motivation, intellectual stimulation. Based on the findings of this study, the three indicators have an influence on knowledge sharing. Thus, in an effort to increase knowledge, the principal must implement the concept of transformational leadership with indicators of motivation, inspiration, and intellectual stimulation.

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REFERENCES

- Abdullah, A. G. K., Ling, Y.-L., & Kader, Z. B. S. A. (2016). "Principal's transformational leadership And teacher's creativity: Mediating role of self-efficacy. *Management Research Journal. J*, 6(1), 1–7.
- Ayo, F. E., Folorunso, O., & Folorunso, S. O. (2019). CA-KSE: a combinatorial algorithm for benchmarking in knowledge sharing environment. *International Journal of Intelligent Computing and Cybernetics*. <https://doi.org/10.1108/IJICC-12-2017-0158>
- Cabrera, F. E., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The International Journal of Human Resource Management*, 16, 720–35.
- Chu, K. W. (2016). Beginning a journey of knowledge management in a secondary school. *Journal of Knowledge Management*, 20(2), 364–385. <https://doi.org/10.1108/JKM-04-2015-0155>
- Craft, A. (2001). Approaches to creativity in education in the United Kingdom. *The Routledge international handbook of creative learning* (pp.). In T. R. international handbook of creative Learning (Ed.), International Journal Sefton-Green. In J. Sefton-Green, P. Thomson, K. Jones, & L. Bresler (Eds.).
- Dong, Yuntao, M, K., Bartol, Zhang, Z.-X., & Li, C. (2017). Enhancing employee creativity via individual skill development and team knowledge sharing: Influences of dual-focused transformational leadership. *Journal of Organizational Behavior*, 38, 439–58.
- Sopandi E., & Siswanto A. (2021). EVALUATION OF EDUCATION PROGRAM IMPLEMENTATION SCIENCE-BASED MADRASAH ALIYAH. *Akademika : Jurnal Teknologi Pendidikan*, 10(01), 249-260. <https://doi.org/10.34005/akademika.v10i01.1097>
- Griffin, R. w., & Moorhead, G. (2014). *Organizational Behavior Managing People and Organizations* (11th Editi). Cengage Learning.
- Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of Business Researchbussines*, 62, 461–473.
- Gunduz, H., Cekmecelioglua, & Ozbagb, G. K. (2016). Leadership and Creativity: The Impact of Transformational Leadership on Individual Creativity. *Procedia - Social and Behavioral Sciences*, 235, 243 – 249. <https://doi.org/doi: 10.1016/j.sbspro.2016.11.020>
- Hellriegel, D., Slocum, J., & Jr, J. W. S. (2011). *Organizational Behavior*. Cengage Learning.
- Horn, J.-S., Hong, J.-C., ChanLin, L.-J., Chang, S.-H., & Chu, H.-C. (2005). Creative teachers and creative teaching strategies. *International Journal of Consumer Studies*, 29(4), 352–358.
- Hsiao, Y. P., Brouns, F., Kester, L., & Sloep, P. (2011). Cognitive load and knowledge sharing in Learning Networks. November 2014, 37–41. <https://doi.org/10.1080/10494820.2010.548068>
- John R. Schermerhorn, J., Hunt, J. G., Osborn, R. N., & Uhl-Bien, M. (2010). *Organizational Behavior* (11th Editi). John Wiley & Sons, Inc.
- Kaplan, L. S., & Owings, W. A. (2015). Teacher Quality and Student Achievement: Recommendations for Principals. *NASPP Bellutin*, 85, 3.
- Lin, R. S.-J., & Hsioa, J.-K. (2014). The Relationships between Transformational Leadership, Knowledge Sharing, Trust and Organizational Citizenship Behavior. *International Journal of Innovation, Management and Technology*, 5(3), 171–174.

- Lin, Y. S. (2011). Fostering Creativity through Education A Conceptual Framework of Creative Pedagogy. *Scientific Reseach*, 2, 149–155.
- Mahmood, M., Uddin, M. ., & Fan, L. (2019). The influence of transformational leadership on employees' creative process engagement: A multi-level analysis. *Management Decision*, 5(7), 741–764.
- Mihardjo, L. W. ., Sasmoko, Firdaus, A., & Elidjen. (2019). Knowledge Sharing And Transformational Leadership. *Journal Of Security And Sustainability Issues*, 25, 1–25.
- Niphadkar, C., & Kuhil, A. M. (2017). The New age of Transformational Leadership: Evolution and Attributes. *International Journal OfScientific & Engineering Research*, 8(6), 546–555.
- Odumeru, J. A., & Ogbonna, I. G. (2013). Transformational vs. Transactional Leadership Theories: Evidence in Literature. *International Review of Management and Business Research*, 2(2), 355–361
- Ravikumar, R. (2017). Transformational leadership and follower's creativity: Does follower's sex matter? *Journal Of Humanities And Social Science*, 22, 32–38.
- Ridzwan, S. B., & Mokhsein, S. E. B. (2017). Creativity in Preschool Assessment. *International Journal of Academic Research in Business and Social Sciences*, 7(2), 543–560.
- Rinkevich, J. L. (2011). Creative teaching: Why it matters and where to begin. *The Clearing House. A Journal of Educational Strategies, Issues and Ideas*, 84(5), 219–223.
- Robbins, S. P., & Judge, T. A. (2017). *Organizational Behavior (Seventeenth)*. Pearson Education.
- Son, Yeon, S., Cho, D. H., & Kang, S. W. (2017). The impact of close monitoring on creativity and knowledge sharing: The mediating role of leader-member exchange. *Creativity and Innovation Management*, 26, 256– 65.
- Suifan, T. S., & Al-Janini, M. (2017). The Relationship between Transformational Leadership and Employees' Creativity in the Jordanian Banking Sector. *International Review of Management and Marketing*, 7(Issue 2), 284-292. www.econjournals.com
- Teymournejad, K., & Elghaei, R. (2017). Effect of Transformational Leadership on the Creativity of Employees: An Empirical Investigation. *Engineering, Technology & Applied Science Research*, 7, 1413–1419.
- Tran, L. T. B., Ho, N. T., & Hurle, R. J. (2016). Teaching for Creativity Development: Lessons Learned from a Preliminary Study of Vietnamese and International Upper (High) Secondary School Teachers' Perceptions and Lesson Plans. *Creative Education*, 7, 1024–1043. ix
- Tsaniyah, A. B., & Poedjiastoeti, S. (2017). Moge Learning Model To Improve Creative Thinking Skills. *International Journal of Education and Research*, 5(1), 165–172.
- Vasudevan, H. (2013). The Influence of Teachers' Creativity, Attitude and Commitment on Students' Proficiency of the English Language. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 1(2), 12–19. www.iosrjournals.org
- W, Z. Q. and P. (2015). A cross-level examination of the process linking transformational leadership and creativity: The role of psychological safety climate. *Hum Perform*, 28, 405–424.