

# The Influence of Leader Member Exchange on Innovative Work Behavior (A Study of High School Teachers)

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# Abstract

This research aimed to examine the influence of leader-member exchange on innovative work behavior among high school teachers in Bantul Regency. This ex-post facto research used a quantitative approach involving 259 teachers. The instruments used in this study were the scales of leader-member exchange and innovative work behavior. Reliability tests were carried out on several dimensions of LMX. On the affection dimension, the score was 0.741, on the loyalty dimension it was 0.806, on the contribution dimension it was 0.704, and on the professional respect dimension it was 0.729. The score of overall LMX was 0.914, and the score of innovative work behavior was 0.906. According to the overall analysis, leader-member exchange has an influence on innovative work behavior. Furthermore, the partial data analysis has found that: (1) the affective dimension of LMX influences innovative work behavior. (3) the contribution dimension of LMX influences innovative work behavior. (3) the contribution dimension of LMX influences innovative work behavior. (4) the professional respect dimension.

Keywords: Leader-Member Exchange; Innovative Work Behavior; Teachers

# 1. Introduction

The Covid 19 (Coronavirus) pandemic has influenced nearly every aspect of life (Javed et al., 2020), including schools. As it was impossible to go to school, face-to-face learning had to be replaced by distance or online learning. Unfortunately, this transition gave rise to the student's boredom. According to UGM public research, the majority of high school students in Yogyakarta were bored, and it was suggested that teachers implement technology-based innovations.

Teacher innovation is significant because it allows instructors to stay current with advances over time, facilitate technology developments, and serve as a springboard for citizens to become creative and innovative persons (Torugsa & Arundel, 2016). Unfortunately, many teachers are more at ease and content with traditional learning methods. According to de Jong and den Hartog, innovative work behavior is defined as a person's conduct ranging from proposing ideas to advocating ideas to applying ideas based on the needs of the organizational environment. In the epidemic era, innovative teachers can aid in the resolution of learning issues. This teacher's innovative behavior appears to be a concern as well. According to data supplied by the Ministry of Education and Culture, only 2% of Indonesian teachers are innovative, while the remaining 98% are not (Khayati & Sarjana, 2015). Teachers' innovative work behavior is certainly influenced by several factors. According to Hammond et al. (2011), there are five factors that influence innovative work behavior, one of which is contextual factors involving the role of leaders and leader-member exchange.

Leader-member exchange is a theory based on the reality that leaders do not treat all of their employees equally (Liden & Graen, 1980). The superior's treatment of its members will create different reciprocal relationships. Kim & Koo (2017) and Nam (2020) categorized it into in-group and out-group. Those in the group will have many advantages and be given more trust by the leader, while those out group will not.

LMX is made up of four dimensions. The affection dimension refers to the connection that leaders and members have, such as concern. This dimension is focused on emotional bonds, which will assist members in promoting ideas for innovative work behavior (Harris et al., 2013). The second dimension is loyalty, which describes an individual's consistency from one scenario to the next. Members must be loyal in order to boost work performance and promote innovative behavior. The third dimension is contribution, which examines how accountable a person is for their job responsibilities. Finally, there is the dimension of professional respect or regard for one's own expertise. Professional respect is required to provide support and motivate individuals to contribute more than the job description, and success will be recognized more generously (Widiastuti & Kusmaryani, 2020).

According to Agalday and Dagli's research, some school principals pay less attention to teacher health and do not involve teachers in decision-making. Furthermore, a study by Santri (2016) found that 36% of teachers had poor-quality relationships with school principals in Lubuklingau. If these issues are not addressed, they will have an influence on teacher performance, including innovative work behavior.

This study is also based on an initial survey conducted empirically by the researchers with members of the local community (students and parents) and teachers. During the pandemic, most teachers, according to the students, gave uninteresting instruction, thus they were less interested in being active and listening to them. This made their parents concerned about their children's learning experience. Aside from that, according to a study of numerous teachers, they also complained about their lack of technological knowledge, resulting in less-than-optimal use of technological capabilities. The school principals provided only minimal support, such as training. In addition, due to their unfamiliarity with technology, older teachers frequently simply gave individual assignments and engaged with pupils less. For this reason, the researchers were interested in investigating the impact of LMX on teachers' innovative work behavior.

This research was different from previous research, in that it examined the influence of LMX on the innovative work behavior of high school teachers in Bantul Regency. Such research was rarely done in school settings, especially on teachers' behaviors (Premalatha, 2017). Bantul Regency was regarded as representative in terms of online learning but the survey revealed some issues relevant to this research topic.

According to the above description, the objective of this study was to investigate the impact of leader-member exchange on innovative work behavior among high school teachers in Bantul Regency. This research also has value in that it expands on the concept of investigating leader-member exchange and innovative work behavior, particularly in the high school setting.

#### 2. Method

# 2.1. The Research Method

This research employed a quantitative approach and could be classified as ex post facto research. Ex-post facto research seeks to discover the reasons for changes in behavior, symptoms, or phenomena caused by an event, behavior, or objects that cause changes in the independent variables that have already occurred in their entirety.

#### 2.2. The Research Sample

According to Sugiyono, (2015), "The population is the entire research subject". This study included 1,141 teachers from 35 high schools in Bantul Regency, Indonesia. In this study, the sample was determined using a probability sampling design, which means that all individuals in the population had an equal chance of being chosen as the research sample. In the end, the sample for this study consisted of 259 high school teachers from Bantul Regency, Indonesia.

#### 2.3. Data Collection Technique

The data were collected using psychological scales. The scales used were the LMX scale with 27 items and the innovative work behavior scale with 17 items. The results of item selection showed that the correlation number for the LMX scale increased from 0.274 to 0.648 and the innovative work behavior scale increased from 0.409 to 0.674. According to the reliability tests, the score of affection dimension was 0,741, the score of loyalty dimension was 0,806, the score of contribution dimension was 0,704, the score of professional respect dimension was 0,729, the overall score of LMX was 0,914, and the score of innovative work behavior was 0,906.

#### 2.4. Data Analysis

The data were analyzed descriptively in the form of percentages. Descriptive analysis includes subject characteristics. Multiple regression analysis was carried out using the f-test and t-test with a probability value of <0.05, and a significance level of 5% or 0.05. However, before testing the hypothesis, an assumption test was carried out, namely the normality test using Kolmogorov Smirnov and the linearity test using a significance level of 5% or 0.05. It is said to be normal and linear if the probability value is >0.05.

#### 3. Findings and Discussions

#### **3.1 Findings**

#### **3.1.1 Descriptive Analysis Findings**

Based on the analysis of subject characteristics, the following data were found, presented in Table 1 to Table 4.

Age	Frequency	Percentage
<30	67	26%
31-40	57	22%
41-50	33	13%
51-60	48	19%
Unknown	54	20%
Total	259	100%

Gender	Frequency	Percentage
Male	99	38%
Female	137	53%
Unknown	23	9%
Total	259	100%

Table 2. Gender

# Table 3. Latest Education

Latest Education	Frequency	Percentage
Bachelor	198	77%
Master	34	13%
Unknown	27	10%
Total	259	100%

#### Table 4. Length of Employment

Length of Employment	Frequency	Percentage
<1 year	33	13%
1-5 years	55	21%
5-10 years	48	19%
10-15 years	7	3%
>15 years	86	33%
Unknown	30	12%
Total	259	100%

#### **3.1.2 Hypothesis Testing Results**

Before testing the hypothesis, prerequisite tests (the normality and homogeneity tests) were carried out. The results of the one-sample Kolmogorov-Smirnov test suggested that the data between the dependent (innovative work behavior) and independent (leader member exchange) variables were normally distributed. ..... The result of the normality test is presented in the following table:

Table 1	. Norma	lity T	est F	Result
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K-W	K-W P		Description
1,349086	0,053	0,050	Normal

The linearity test was conducted to see whether there was a linear relationship between the dependent (innovative work behavior) and independent (leader-member exchange) variables. The linearity test result can be seen in the table below:

F count	Р	Description
4.310	0,332	Linear

Next, to test the hypothesis, an F-test was carried out to determine the effect of variable X simultaneously (combined) on variable Y. The leader-member exchange variable as variable X and the innovative work behavior variable as variable Y were tested using SPSS. The results of the F test in multiple linear regression analysis can be seen based on the ANOVA output table in the following.

	ANOVA					
Model	Sum of Df Mean			Mean	F	Sig
		Squares		Square		
1	Regression	5.060.763	1	5.060.763	110.342	.000 <sup>b</sup>
	Residual	11.787.098	257	45.864		
	Total	16.847.861	258			

#### Table 3. Hypothesis Testing Result (F-test)

Based on the SPSS output table above (Table 3), it can be seen that the significance value is 0.000. Because the significance value is <0.05, it can be concluded that the hypothesis is accepted or in other words, leader-member exchange simultaneously influences innovative work behavior. Then, to see the magnitude of the influence of LMX on innovative work behavior, an R squared was performed whose result is presented in Table 4 below.

## **Table 4. R Squared Result**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the	
Estimate					
1	.548	.300	.298	6.772	

It can be seen that in the SPSS model summary output table, the coefficient of determination or R square value is 0.300. The correlation coefficient value indicates that the LMX variable simultaneously influences the innovative work behavior variable by 30%. Meanwhile, the remaining 70% was influenced by other variables that were not studied.

The next hypothesis testing involved a T-test. The T-test was used to find out whether each variable X partially (each) had an effect on variable Y. In this study, four X variables were tested, which were the dimensions of LMX, including the affection dimension, loyalty dimension, contribution dimension, and professional respect dimension. The results of the T-test can be seen in Table 5 below.

	Coefficients					
Model					t	Sig.
1		В	Std. Error	Beta		
	(Constant)	26.606	3.702		7.187	.000
	AFFECTION	.491	.204	.213	2.405	.017
	LOYALTY	.092	.197	.043	.467	.641
	CONTRIBUTION	.889	.228	.280	3.900	.000
	RESPECT	.330	.232	.113	1.423	.156

#### Table 5. T-test Result

Based on the table above, it can be seen that each dimension has a different significance value. The affection dimension has a significance value of 0.017, the loyalty dimension has a significance value of 0.641, the contribution dimension has a significance value of 0.000 and the professional respect dimension has a significance value of 0.156.

The way to interpret the partial t-test in multiple linear regression analysis is to compare significance values. If the significance value is <0.05, it can be concluded that variable X has an effect on

variable Y. However, if the significance value is >0.05, it can be concluded that variable X has no effect on variable Y.

It can be concluded that two dimensions of LMX (affection and contribution) influence innovative work behavior, while the other two dimensions (loyalty and professional respect) do not. In relation to the t-test results, the conclusion can be seen in the following table.

Hypothesis	Significance Value	Influence Percentage	Outcome
LMX influences innovative work behavior	0.000	30%	Accepted
The affective dimension influences innovative work behavior	0.017	25.5%	Accepted
The loyalty dimension influences innovative work behavior	0.641	0%	Rejected
The contribution dimension influences innovative work behavior	0.000	25.7%	Accepted
The dimension of professional respect influences innovative work behavior	0.156	0	Rejected

#### Table 6. Hypothesis Testing Results

Based on the hypothesis test results table, the LMX variable was proven to have an influence on the innovative work behavior variable. Meanwhile, when it comes to each dimension, the dimensions of affection and contribution were found to influence innovative work behavior, but the dimensions of loyalty and professional respect were not.

#### **3.2 Discussions**

The descriptive analysis of the affection dimension shows that the majority of subjects had moderate to high levels of affection. The affection dimension is the interpersonal relationship between superiors and members (care). This may be influenced by the employees' length of employment and genders.

In terms of length of employment, it was found that on average the teachers worked for more than 15 years. This is in line with a study by Ghaus (2018) that when people work for a long time, closer informal relationships may be built. According to Atatsi et al., (2019), a person's length of service will also influence the perception of superiors and members as well as building altruistic behavior with leaders. This relationship is beneficial for the members.

According to the findings in the field, the majority of the principals of the schools from which the data was collected were male, but the majority of the subjects included were female. Because gender disparities might lead to limited partnerships, this can cause the affection component to be suboptimal (Islam et al., n.d.).

The second descriptive analysis related to the loyalty dimension found that the majority were in the medium category. The loyalty dimension is a description of the consistency of individual behavior from one situation to another (Liden & Graen, 1980). The reason could be the age of the subject as on average the subjects were below 30. According to Gupta et al., (2020), the subject's age difference, specifically the age gap between the principals and the teachers, can lead to misunderstandings,

miscommunication, and different perceptions. Because of this disparity, they are incompatible in terms of work techniques, work ethic, and work inventiveness (Rudolph et al., 2015).

The next descriptive analysis, which is related to contribution dimensions, found that on average the subjects were in the medium category, tending to be high. The contribution dimension itself is defined as behavior that shows an attitude towards achieving a common goal, either implicitly or explicitly (Liden & Maslyn, 1998). This is likely caused by the length of work and level of education. Individuals who have worked for a long time tend to be more involved in the organization and in management (Ju & Li, 2019). Furthermore, most subjects had a bachelor's level of education. According to Cortez, (2000), the higher a person's education, the more insight they have, and the more they are involved in an organization. They are often dissatisfied with the organization, and thus they will make changes or innovations.

The next descriptive analysis pertains to the dimension of professional respect. It was found that the majority of subjects were in the medium category tending to be high. The dimension of professional respect is defined as the perception that every reciprocal relationship between superiors and employees can build a positive reputation both inside and outside the organization (Omilion-Hodges & Ptacek, 2021). The fundamental explanation for the high professional respect dimension is due to the leadership style. Teachers value open communication with the principal. This open communication gives them the impression that the principal is participating in decision-making, resulting in positive dialogue.

The next discussion is regarding the LMX variable. The descriptive analysis suggests that the majority were in the medium to high group. LMX refers to a reciprocal interaction between superiors and subordinates that influences attitudes, motivation, and conduct (liden). These findings imply that the interaction between school principals and teachers is of high quality. Quality LMX relationships help the organization by providing opportunities and rewards to its members (Zhao et al., 2019).

The last descriptive analysis covers innovative work behavior variable. In this variable, it was found that the majority of subjects were in the medium category, tending to be high. Innovative work behavior is defined as behavior that is carried out intentionally and there are several stages to it (jannsen). Gender is the first factor that contributes to innovative work behavior. According to descriptive analysis, the number of male and female subjects was not significantly different. According to Østergaard et al. (2011), gender balance in the workplace seems to enhance innovative work behavior. Another consideration is the subject's age. According to Etikariena, the age group of 20-40 years is the most fertile ground for innovation. They exhibit more positive behavior, such as increased productivity and the formation of more collaborative partnerships. The amount of education is also a factor in the prevalence of innovative work behavior.

In addition to doing a descriptive analysis study, the researcher also performed numerous regression hypothesis tests, specifically the F-test and T-test. The first hypothesis test was the F-test, which looked at whether LMX affected innovative work behavior in general. According to the F-test, LMX has a 0.000 significant value and a 30.8% effect on the innovative work behavior of high school teachers in Bantul Regency. The principal's position is critical in influencing teachers' innovative conduct. The leader of the school is responsible for not only leading, but also for supporting, motivating, and passing knowledge to his members (Kidwell, 2013).

During the COVID-19 pandemic, innovative work behavior provides new ideas. This is demonstrated by the rush of online learning media and online lessons into the teaching and learning process. Furthermore, instructors and principals who have positive interactions will be able to improve

their talents (Kularathne, 2021). The statistic of 30.8% suggests that there were other impacting elements that were not investigated in this study.

The T-test was the next hypothesis test. It determined whether or not each dimension promoted innovative work behavior. With a significance of 0.017, the affective dimension has a substantial influence on innovative work behavior. This suggests that the higher the LMX quality, the more innovative the work behavior, and vice versa.

Organizational considerations contribute to the affective dimension driving innovative work behavior. The first is a positive organizational climate. Such a climate can instill feelings of safety, comfort, and respect. As a result, there will be more members to explore their skills. Aside from that, leaders are quite influential, particularly in terms of leadership style. Many members like transformational leadership styles. Transformational leadership is distinguished by a sense of empathy or compassion so that superiors and members establish a more affectionate relationship (Kock et al., 2019). Empathy may assist a person in understanding who they can trust, who they should respect, and how they should behave with each individual.

The affective dimension has a 25.7% influence on innovative work behavior. This figure is still quite low. This could be due to members focusing on extrinsic motivation, specifically their relationship with the school principal, rather than internal factors. Stronger motivation, according to Hammond, is motivation that comes from within.

The following T-test was to see if the loyalty factor affected instructors' innovative work behavior. According to the results of this test, the loyalty dimension did not affect the innovative work behavior of high school teachers in Bantul Regency.

Another T-test was performed to see whether the contribution dimension influenced innovative work behavior. Based on the results, this dimension affects the innovative work behavior of high school teachers in Bantul Regency. The underlying reason for the contribution dimension's effects on innovative work behavior is because of psychological capital (Sweetman et al., 2011). The first psychological capital is self-affirmation. Someone who has high self-affirmation tends to believe in their abilities and will carry out more creative work tasks (Javed et al., 2021). The second is hope. Teachers with high hopes can motivate students to make positive changes. The third capital is resilience, or the ability to overcome adversities. Teachers who believe they will be able to withstand and rebound from adversity will concentrate on finding new approaches to solve challenges. The last one is optimism which is demonstrated through self-development for the advancement of the company.

The final hypothesis test demonstrates that the factor of professional respect has no effect on the innovative work behavior of Bantul Regency high school teachers. This is perhaps due to a society that respects based on status rather than competence. Aside from that, there is a culture of reverence for seniors in the region.

This study has found that LMX influences the teachers' innovative work behavior in Bantul Regency. Meanwhile, two dimensions of LMX (affection and contribution) were observed to influence the teachers' innovative work behavior, whereas the other two dimensions (loyalty and professional respect) did not.

## **Conclusions**

Several conclusions can be drawn based on the research's findings and discussion. These findings demonstrate that LMX has an impact on innovative work behavior in Bantul Regency, with a 30.8% contribution.

Furthermore, in terms of LMX dimensions, it has been found that the affective and contribution dimensions drive innovative work behavior with an influence of 25.7% and 5.1%, respectively. Meanwhile, the dimensions of loyalty and professional respect do not influence the high school teachers' innovative work behavior in Bantul Regency.

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