

# The manuscript

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## ANALYZING THE IMPACT OF LEADERSHIP BEHAVIOR TO SCHOOL PERFORMANCE

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**Abstract:** The objective of this research was to explore the dimension and leadership factors and to formulate Structural Equation Model (SEM) of principal leadership on school performance. This research was adopting mixed methods approach (mix-method) which carried out in two stages (two years). The first stage was exploring research using qualitative approach that specifically to formulate of assumption SEM of principal leadership dimension on school performance. The second stage was the explanation research by using quantitative approach that was specifically intended to empirically examining through analyzing formulate of assumption SEM of principal leadership dimension on school performance. This researched report was the first stage report (the first year) with the process activities and qualitative research phase. The research came up with three conclusions, they were: 1) Taxonomy of behavior hierarchy and leadership orientation demonstrated by the principal of private junior high school in Bogor-Indonesia during carrying out his leadership function was in line with the taxonomy of behavior hierarchy according to Yukl's leadership theory; 2) There was taxonomy of new leadership behavior hierarchy that happened on the leadership of the principal which contributed to the development of the Yukl's leadership theory; 3) Interrelation in the form of direct or indirect relationships of the principal leadership behavior to the school performance can be formulated in the form of the assumption of Structural Equation Model (SEM) which were arranged in four level dimensions of the principal leadership. The results of the SEM assumption of this first stage research will be examined through path analysis which will be carried out on the second stage research.

Keywords: leadership behavior, school performance, structural equation model

### INTRODUCTION

The main function of a principal/principal's leadership is to influence and to facilitate the effort of educationalist and non-educational staff both individually and collectively so synergistically are able to conduct their tasks to achieve school goals. As a leader, the principal is able to improve school performance by influencing in a process that determining the achievement of school performance. The important goal in many studies about leadership is to

identify the behavior aspect that explaining the leader's influence to a team performance, work unit or organization. However, extensive research about leadership behavior over the past half century has produced many taxonomies of different behavior and lack of clear result about effective behavior. A number of studies about leadership behavior and its effect on various variables have been done, but the confusing variation in behavioral construct which is used for this study makes it difficult to compare and integrate findings (G. Yukl, 2012).

Performance achievement of an organization is certainly depending on how the performance is managed. Performance management is a philosophy about managing human behavior that aims to facilitate and support the conformity of goal between individual and organization goals in order to produce organizational and financial performance (Whitford & Coetsee, 2012). Performance management is a system where an organization sets goals, determines performance standard, appoints employees to do something and evaluates it at the same time, gives feedback, determine training and development needs and provide rewards to employees (Claus & Briscoe, 2009; Gotcheva, 2009). Performance management is a process that contributes to the effectiveness of individual and team management in order to achieve very high level of organizational performance (Armstrong & Baron, 1998 in Terracciano, 2017).

Organization performance measurement is a management tool used to improve the quality of decision making and accountability (Gregory & Whittaker, 2007), encourage the achievement of organization goals and provide feedback for continuous improvement efforts (Bastian & Muchlish, 2012). Performance is multidimensional so it will be biased whenever measuring by using single measurement or single standard (Bhargava, Dubelaar, & Ramaswami, 1994; Li & Simerly, 1998), performance is measured based on comparison with various criteria or standards (Murphy, Trailer, & Hill, 1996; Rauch, Wiklund, Lumpkin, & Frese, 2009), provides better performance information (Lumpkin & Dess, 1996).

Organization performance indicator can be grouped into 5 classifications, that is financial vs non-financial performance indicators, global vs local performance indicators, internal vs external performance indicators, performance indicators based on organizational hierarchy, and performance indicators according to their uses (Flapper, Fortuin, & Stoop, 1996). Organization performance can be measured through effectiveness, efficiency, relevance, and financial sustainability dimensions (Lusthaus, Adrien, Anderson, Carden, & Montalvan, 2002; Lusthaus et al., 2004). Jing (2018) has conducted performance measurement by using six performance parameter, they are financial results, staff and customers satisfaction, productivity, retaining staff, and manager retention. From the description above it appears that there are so

many dimensions that can be used as reference for measuring organization performance. Diversity as a result of different alternative resource allocation, different organizational designs alternative, and different distribution and assignment for each organization chooses (Barclay & Osei-Bryson, 2010). In relation with school organization, school performance can be measured from the effectiveness, quality, productivity, efficiency, innovation, quality of life, and work morale (Septiyani, Soegito, & Nurkolis, 2017), input, process and outcomes (Acun-Kapikiran et al., 2014; Hoy & Miskel, 2006).

A school is an education unit that functions as a place for development of student through various activities in the process of educational services. Students are the main target or center of attention that get the service while the principal, teachers, and other education personnel are professionals who are required to carry out their duties and continuously innovating for the progress of the school to provide the best service to students. In carrying out its functions, school needs a leader as a captain in managing and utilizing all potential of the school. Principal acts as a manager, the principal takes a role as a manager in managing the school, so he is demanded to have qualified leadership abilities. The main character that must be possessed by a successful leader to achieve performance is an encouragement that includes achievement motivation, ambition, energy, tenacity, initiative, leadership motivation, honesty and integrity, confidence, cognitive ability, and business knowledge (Malo, 2011).

The principal leadership is the spirit that becomes the driving force of the school organization to achieve its goals. The principal's leadership behavior must be able to encourage optimal performance of educators or teachers and other education personnel through a variety of mentoring processes, briefing, coaching, supervision, evaluation, and reflection on the teachers and educational staff, both individually and as a group. All principals' leadership activities must be directed towards improving the quality of the school services to students as their main targets. The leadership behaviors used in this research was refer to Yukl's leadership theory that was grouping the leadership behavior into three meta-category hierarchies, namely task-oriented behavior, relationship-oriented behavior, and change-oriented behavior (Gary Yukl, Gordon, & Taber, 2007). In the year of 2012, based on his study, the leadership behavior was added by one category so that it became four categories (G. Yukl, 2012). The four meta-categories and behavioral components are related to the taxonomic hierarchy that describes leadership behavior that are used to influenced team performance, work unit, or organization proposed by Yukl are shown in Table 1.

The theoretical basis between the three meta-categories lies in distinguishing the main objectives of behavior. Each meta-category has a different main purpose, but all of them are

involve in determinant of performance. By task-oriented behavior, the main goal is to complete work in an efficient and reliable way. By relationship-oriented behavior, the main goal is to improve the quality of human resources and relationships, which are sometimes called “human capital”. For change-oriented behavior, the main goal is to increase innovation, collective learning, and adaptation to the external environment. By external leadership behavior, the main objective is to obtain the information and resources needed, and to promote and defend the interests of the team or organization. Besides the differences in these main objectives, each meta-category includes specific behaviors that are unique to achieving the goal. The relevance of each component of behavior depends on the aspect of the situation and the effect is not always positive for the main purpose or for the other results.

**Table 1. Yukl's Leadership Behavior Taxonomy**

Leader Orientation	Hierarchy Leader Behavior Taxonomy
Task-oriented	Clarifying Planning Operation monitoring Problem solving
Relationship-oriented	Supporting Developing Identifying Empowering
Change-oriented	Advocating for change Imagine change Encouraging innovation Facilitate collective learning
Eksternal	Networking External monitoring Representing

Source: Yukl (2012)

The proposed taxonomy is based on the extensive factor analysis research by (Gary Yukl et al. (2007), and also reflects findings in other taxonomic studies that link specific behavior with team or organizational performance. Three meta-categories of Yukl's taxonomy were maintained but other components on task-oriented behavior (problem solving) were added, consultation and delegation were combined to become a broader relationship-oriented component (empowerment), and take a risk to promote change to include in a broader change-oriented behavior (advocating for change). This new taxonomy also covers the fourth category, which is external behavior (G. Yukl, 2012).

This research is trying to explore factors of leadership behavior that contributed in direct or indirect influencing on leadership behavior to school performance by using the basic theory

of Yukl. Starting by studying leadership behavior hierarchy proposed by Yukl, this research tries to explore leader behaviors which are specifically shown by the principals during empowering all resources own by the school in driving to achieving the optimal school performance.

The principal's performance in this study was measured by three aspects, they are (a): behavior in carrying out tasks that is the principal behavior during conducting managerial functions, (b) the way to carry out tasks in achieving work results that reflected in his commitment as a reflection of his personality and social competence, and (c) from the result of his work which are reflected in changes in the performance of the school he leads. This research tries to examine a principal performance in carrying out his leadership functions based on the achievements which is reflected in changes of the school performance as an indicator of the success of the principal. The main problem in this research were to get the tendency taxonomy of leader behavior and the drawing of quality and direct and indirect relationship between the dimension of principal's leadership behavior and school performance.

## RESEARCH METHODOLOGY

### Research Design

This research adopted a mixed method approach (*mix-method*) as the design used in similar study (Day, Gu, & Sammons, 2016; Ivankova, Creswell, & Stick, 2006; Tashakkori & Creswell, 2007a). The selected *mixed-method* design was based on literature review about the usage of the mix-method approach in leadership research that informed design, the development of survey questionnaires, and the case study interviewed process round (Currall & Towler, 2003; Tashakkori & Creswell, 2007b). The use of *mix-method* might be increasing the possibility of identifying various patterns of relationships and the possibility of causal relationships between variations on performance indicators of different schools and the size of the process at school and how this related to the features of different leadership practices. Research sequence facilitated the integration of evidence and synthesis and meta-inference efforts. The overall research design and sequence were presented in figure 1.

This research is conducted in two steps (two years) and this report is the first phase of research report (the first year), with the phase of process activities and qualitative research that covering three main components:

1. The first survey and analysis of data sets from interviews and observations of school principal, teachers, and key staff in a sample of case studies at eight junior high schools



(private junior high schools) that randomly selected stratified based on the status of school development.

2. The second survey and data analysis which is more focused on the teacher and key staff as informants. The second survey was conducted to explore more deeply the features of school organizations and process of organizing school, as well as principal's leadership behavior. Survey questions ask and key staff informants to report the extent of change in various features of the activity and school leadership behavioral practices over the past three years and their effects on teacher/staff performance and the overall school performance. This was done to explore the orientation trends of leadership and taxonomic leadership behavior that was demonstrated by the principal.
3. Rational analysis to explore the direct or indirect influence of school principal leadership based on leadership dimension and their factors on school performance. This analysis was carried out with the aim to explore, formulate, reflect, and revised *Structural Equation Model* (SEM) alleged leadership of school principals toward school performance.

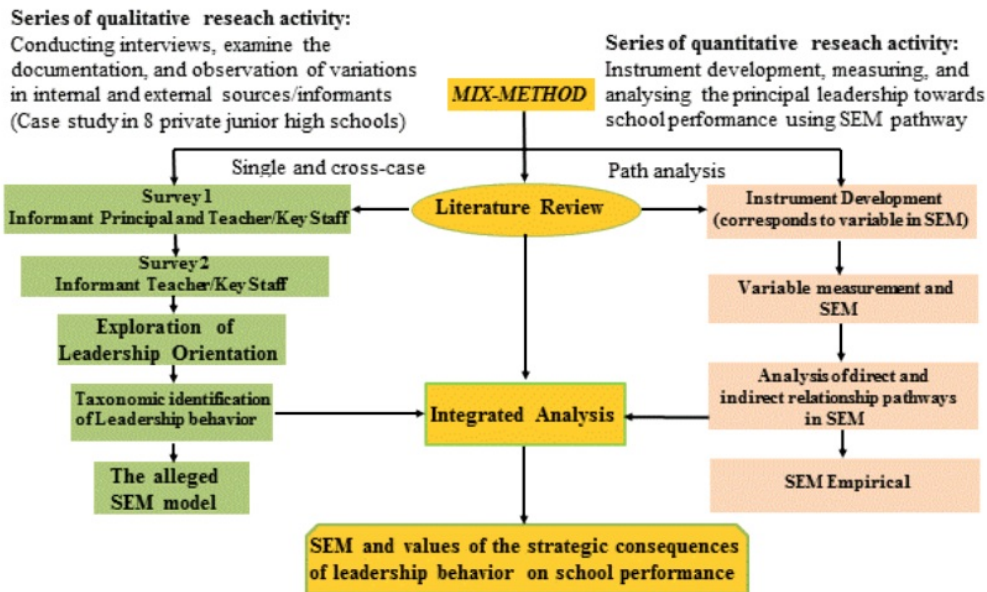


Figure 1. Research design

### Participant

This first phase of research involved 8 principals and 16 teachers from 8 private junior high school in Bogor city and district of Bogor. Determination of the private junior high school as the focus of this research was conducted *purposively* by paying attention to one of school

performance indicator that was public trust shown by the number of students in the past three years.

### **Research Instrument**

The data collected on the first phase of research was carried out using deep interview technique. The main focus questions raised during interview were grouped into eleven situations faced by the principals in carrying out their leadership tasks. The same focus questions were used both during the principal and teacher interviews, but the orientation of the questions was different. The questions to the principals were directed more at what they did in dealing with the situation which were the focus of the questions, meanwhile the questions to the teachers were more triangulated, so the questions were directed at the response and what teachers felt when the principals faced the situation that were the focus of the questions. The eleven situations that were the focus of the questions were presented in table 2.

**Table 2. Focus of the question**

<b>No.</b>	<b>Situation Faced By the Principal</b>	<b>Focus of the Question</b>
1.	Instilling teacher awareness of ethics, norm, standard, procedure, criteria, policy, and regulations	The situation faced and the actions of the principal
2.	Policy implementation, procedure, guidelines, or other	Examples of events and principal's actions
3.	Step in the development of human resources in school	Steps taken by principal
4.	Instilling trust in teachers/staff as credible leaders	Steps and actions taken by principal
5.	Teacher and staff performance improvement	Examples of special procedures or processes that are prepared or designed
6.	Error in making decisions	Action in dealing with this situation and its results
7.	Teacher performance is low or not in line with expectations	The causes and actions that are committed by principal
8.	Have to make a decision in a difficult situation	An example of situation as well as how the principal behaves and acts
9.	Teacher and staff behave not according to norms, ethics, and regulations	Reaction, action, and effect on teacher/staff behavior
10.	Conflict of interest with teacher, staff, students, school committees, or other parties ( <i>stakeholders</i> )	Action and reason for those actions
11.	Work as part of a team	Role and action taken so that the team able to work optimally

## **RESULT AND DISCUSSION**

### **Result**

#### **Behavioral Taxonomy and Leadership Orientation Tendencies**



In this research, behavioral taxonomy and leadership orientation were grouped into 4 categories, they were: task oriented, relationship oriented, change oriented, and external oriented (G. Yukl, 2012). Behavioral indicators for each leadership orientation category which used as the basis for determining the behavioral taxonomy of the theory became a reference in analyzing interview data in this study to determined taxonomy tendencies for the behavior and leadership orientation of the principal. The emergence of leadership behavior as the result of interviews with both the principal and the teacher which was in line with or in accordance with the theory in this research (see table 1) was category as an old behavioral indicator. If other leadership behaviors arise outside the behavioral indicators on the theory, then this behavior was categorized as a new behavioral indicator. The identification of new behavioral indicators would enrich the theory of behavior taxonomy and leadership orientation. The description of the principal's and teacher's answers to all focus questions (11 focus questions / situations), then processed through the process of data reduction so that only data that was directly related to the focus of the question was taken and presented (*displayed*).

The data resulting from the reduction were then analyzed by looking at the consistency of the answer of the main informant (the principal) in the form of actions describe the taxonomy of his behavior and leadership orientation. Consistency in this case was seen from the constancy of the action taken which was shown from the answer which was always repeated whenever asking about the focus of the same problem by asking with different way of questions. Consistency could also be seen from the firmness of the actions expressed based on the description of the answers to all the focus of the questions (11 focus questions) raised. It means, leadership behavior demonstrated by the principals were in accordance with the order of leadership behavior of taxonomy hierarchy of Yukl's theory, which was oriented on tasks, relationships, changed, and external.

Based on analyzing of the first interview data, it was obtained the description that there was consistently results between the results of the principal's interview data with teacher's interview data analyzing. It means, actions that explained by the principals during facing various situations were in accordance with equation focuses and also supported by teachers interviewed data analyzing. The results of the analysis of the first interview with the teachers also did not reveal any actions that could be categorized into a new behavioral taxonomy of the principals' leadership. The data analysis of the results of the second interview with the teachers revealed the information of the principal's action, which could be categorized as a new taxonomic behavior of the principal's leadership, because those behaviors did not include either taxonomy of the behavioral hierarchy and leadership orientation of Yukl's leadership theory.

Recapitulation of the result of data analysis interviews with the principals and triangulation through two interviews with teachers were presented in table 3. The finding of this research was obviously could enrich the repertoire of theories about behavioral hierarchy taxonomy and leadership orientation which was developed by G. Yukl (2012).

**Table 3. Leadership Behavioral Hierarchy Taxonomy**

Leadership Orientation	Leadership Behavioral Indicator	Category	Remark
Task Oriented	Clarifying each assignment that must be	Old	Yukl, G. (2012)
	Planning every task that must be done	Old	Yukl, G. (2012)
	Monitoring the operation of the task implementation	Old	Yukl, G. (2012)
	Solving problems that arise in the implementation of the task	Old	Yukl, G. (2012)
	Giving technical guidance prior to task implementation	New	Hidayat, N. & Wulandari, F. (2019)
	The task implementation is design together	New	Hidayat, N. & Wulandari, F.
Relationship Oriented	Supporting teachers and staff	Old	Yukl, G. (2012)
	Developing teachers' and staff's ability	Old	Yukl, G. (2012)
	Recognizing teachers and staff	Old	Yukl, G. (2012)
	Empowering Teachers and staff	Old	Yukl, G. (2012)
	Visiting teachers' and staff house	New	Hidayat, N. & Wulandari, F.
Change Oriented	Advocating change to teachers and staff	Old	Yukl, G. (2012)
	Imagining change which will be happened in the future	Old	Yukl, G. (2012)
	Pushing innovation to teachers and staff	Old	Yukl, G. (2012)
	Facilitating collective learning	Old	Yukl, G. (2012)
	Facilitating individual learning (formal/non formal)	New	Hidayat, N. & Wulandari, F. (2019)
External Oriented	Partnership network development	Old	Yukl, G. (2012)
	School external monitoring	Old	Yukl, G. (2012)
	Represent the school in various interests	Old	Yukl, G. (2012)
	Prioritizing external parties.	New	Hidayat, N. & Wulandari, F.

### Structural Equation Model (SEM) Principal's Leadership on School Performance

A study based on interview data from in-depth interviews with principals and teachers that related to principal's leadership towards the school performance were conducted to explore and identify factors or variables within the scope of principal's leadership dimension which was suspected of contributing to school performance. Furthermore, factors or variables that had identified based on the results of the analysis of the interview data were grouped according to their level and dimensions through the study of relevant theories and researches. Combination of interview data analysis results and theoretical study / research results were then used as the basis for formulating *Structural Equation Model (SEM)* principal's leadership dimension to

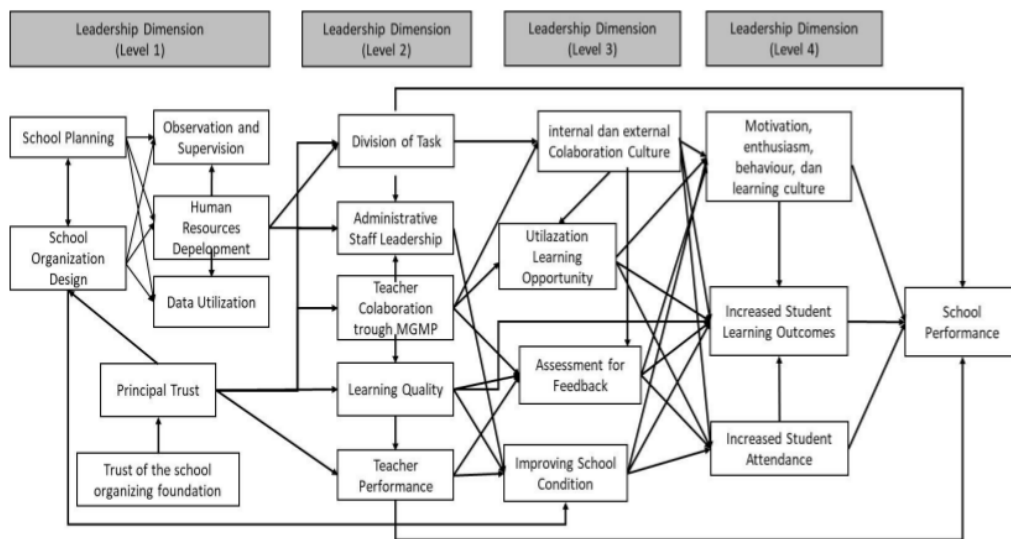
predict school performance improvement. This research was an early stage research that was the exploration stage through qualitative study so the SEM model produced was a conjecture model which would be tested through the next phase of study (quantitative study) followed by path analysis based on the data of all variables in the SEM model. Based on the data analysis of the interview result, it was identified some factors or variables that could be grouped into 4 (four) levels of principal leadership practiced that related to school performance improvement.

Level 1 consists of four leaderships main dimension: they are “school plan”, “school organization design”, “principal’s trust” and “trust of the school organizing foundation”. With the first two dimension, it can be identified three other dimensions that directly related to, they are “human resource development”, “observation and supervision”, and “data utilization”. “Trust of the school organizing foundation” operates through the “trust of the principal” which functions as an endogenous variable in the first two dimensions, namely “school organization design” and “school planning”. By these, on the level 1 leadership it was suspected there were seven dimensions that made up six structural changes model in the leadership practice of the principal.

Level 2 consists of five factors, they are “division of tasks”, “administrative staff leadership”, “teacher’s collaboration through Musyawarah Guru Mata Pelajaran (MGMP)”, “quality of learning”, and “teacher performance”. This research revealed that “school trust” factor on leadership dimension at level 1 was suspected to provide a direct effect on the five factors in the level 2 leadership dimension. “School planning” and “school organization design” factors have an indirect effect on “division of tasks” and “administrative staff leadership” which was operated through “human resource development” factor as an intermediate variable or endogenous. “Division of task leadership” and “teachers’ collaboration through MGMP” factors were suspected in contributing on direct influence to “administrative staff leadership”. These factors were supported by principal and teachers’ statement that “division of task leadership” and “teacher collaboration through MGMP” would be going well whenever they got an adequate support from “administrative staff leadership” factor. Meanwhile it was suspected that “teacher’s collaboration through MGMP” had contributed in indirect effect to “teacher’s performance” that operated through “quality of learning” as intermediate variables or endogenous. This fact gave an idea and suspected that “the teacher’s collaboration through MGMP” would effect on “teacher performance” if that factor could rose up “the quality of learning”.

Level 3 consists of four factors, they are “culture of internal and external collaboration”, “utilization of learning opportunity”, “assessment for feedback”, and “improving school

conditions". It was suspected that "school organization design" factor of leadership dimension of level 1 has contributed on direct influence to "school condition improvement". It was suspected that "principal trust" factor did not influence directly to all factors or variables of level 3 leadership dimension, but it worked through the level 2 leadership dimension factors as an intermediate variable or endogenous. Meanwhile, leadership dimension factors of level 3 indicated relationship of one and another dimension. In this case, "internal and external collaboration culture" was suspected to have direct relation with "utilization of learning opportunity" and "assessment for feedback", so it became an endogenous variable of "division of task", "administrative staff leadership", and "teacher collaboration through MGMP" factors. However, there was no data that lead to the alleged relationship between "improving school condition" factor with three other factors of the level 3 leadership dimension.



**Figure 2. Alleged SEM of Leadership Dimension with School Performance**

Level 4 consists of four factors, they are "motivation, enthusiasm, behavior, and learning culture", "increased of learning outcomes", "increasing in student attendance", "school performance" factors. It was suspected that these four factors were interconnected both directly and indirectly, thus it formed its own structural model. Factor of "motivation, enthusiasm, behavior, and learning culture", and "increasing in student attendance" revealed that there was direct or indirect relationship of the two factors with "school performance" where "the increasing in learning outcomes" became an intermediate variable or endogenous. It was suspected that factors of the level 3 leadership dimension had not direct relation with "school performance", but all factors worked through the first three in the level 4 leadership dimension, which were "motivation, enthusiasm, behavior, and learning culture", "increased of learning

outcomes”, and “increasing in student attendance”. Meanwhile, it was also found out that there were data which lead to allegation that the factors of “division of leadership task” and “teacher performance” had a direct influence on “the school performance”. “School performance” factor was the dependent variable that became the final estuary of the alleged SEM in this study. The alleged SEM that resulting from explorative research which was the initial research of the *mixed-method* research was presented in figure 2.

## Discussion

One of the findings in this research was that leadership developed by the principal was more situational depending on the case or problem faced by the principal in carrying out his leadership. It means, from the four tendencies of leadership orientation according to (G. Yukl (2012), there was no tendency of typical leadership orientation adopted by the principal. This finding showed that during carrying out his leadership’s function, the principal did not fixate on one tendency leadership orientation (task-oriented, relationship, change, or external). Actions or leadership behavior which were exhibited by the principal were stressed more on the situation or problem facing, so the action taken was more stressed on the needs of problem solving and effort to encourage the optimal school performance. The findings were in line with result of the research by Bruner, D.Y., Grennee, B. J., Somers-Hill (2007) that stated school change requires a metacognitive and reflective troubleshooter leader. It means, the principal that acted as a manager was required to be able to take an appropriate action depend on the problem and the condition facing that made him able to encourage the school organization performance in the near future. In the relation with the principal’s leadership, all of the principal leadership activities must be directed to encourage the improvement of the school services to students as the main target (Malo, 2011), principal must supervise and monitor the progress of teachers in class (Ediger, 2014).

These findings illustrated that the principal leadership through their actions in various situations became variables that influenced the effectiveness and efficiency of the teacher and staff during carrying out their duty. These findings were supported by another research that showed a principal’s leadership was a variable that can be raised up teacher’s efficiency although it could also reduce this capacity whenever the school leadership was not effective (Soehner, David Ryan, 2012). As a leader, the principal guided the school to teach and study better (Acun-Kapikiran et al., 2014; Wallace, 2013). Another research results were also showed a greater effect of principal leadership if compared to the teacher leadership’s sources in relation to student involvement. The principal leadership effect was weak but significant, but the teacher



leadership effect was not significant. Both forms of leaderships were mediated by many of the same elements of the school organization (Leithwood & Jantzi, 1999).

In order to support the principal's effectiveness in carrying out his leadership function, a principal must pose high self-efficacy. Related to this matter, a study found out that principal self-efficacy confidence was important because it guided action and leader's behavior that affected student expectation and teachers' motivation and also school improvement process (Versland & Erickson, 2017). It means the findings of this research were also support the need for a study about principal self-efficacy and various operational efforts to improve it.

This research was also found out that there was a new taxonomy leadership behavior hierarchy which had happened to principal's leadership in Indonesia especially for the case of Junior High School's principal in Bogor city and district which were the focus of this research. The new leadership behavior hierarchy were: 1) It was found that there were two new behavior taxonomy of the tasks-oriented leadership: a) provide technical guidance before carrying out tasks, and b) the task's implementation is designed together; 2) On the relation-oriented leadership, it was found one new behavior taxonomy, that was make a visit to teacher's and or staffs' house; 3) On the changed-oriented leadership, it was found one new behavior taxonomy, that was facilitating individual learning (formal/informal); and 4) On the external-oriented leadership, it was found one new behavior taxonomy, that was prioritizing external parties.

These findings were materials that could be discussed in relation to development of Yukl's theory who was grouping a leadership orientation into four categories with each leadership behavior of taxonomy hierarchy. These four leadership orientations were: 1) Task-oriented leadership with four taxonomic hierarchy of leadership behavior, namely: clarification, planning, operation monitoring and problem solving; 2) Relationship-oriented leadership with four taxonomic hierarchy of leadership behavior, namely: supporting, developing, recognizing, and empowering; 3) Changed-oriented leadership with four taxonomic hierarchy of leadership behavior, namely: advocating of change, imagining of change, empowering innovation, and facilitating collective learning; 4) External-oriented leadership with three taxonomic hierarchy of leadership behavior, namely: networking, external monitoring, and representing.

If taxonomic hierarchy of the new leadership behavior as the above description is merged into taxonomic hierarchy of leadership behavior according to Yukl's theory, then the taxonomic hierarchy of leadership behavior of all four leadership orientation categories become as follows: 1) Task-oriented leadership becomes six taxonomic hierarchy of leadership behavior, namely: clarifying, planning, operation monitoring, problem solving, providing technical guidance before carrying out tasks (new), and the task's implementation is designed together (new); 2)

Relationship-oriented becomes five taxonomic hierarchy of leadership behavior, namely: support developing, recognizing, empowering, visiting teacher and or staff house (new); 3) Changed-oriented leadership becomes five taxonomic hierarchy of leadership behavior, namely: advocating of change, imagining of change, empowering innovation, facilitating collective learning, and facilitating individual learning (new); 4) External-oriented leadership becomes four taxonomic hierarchy of leadership behavior, namely: networking, external monitoring, representing, and prioritizing external parties (new).

These findings certainly need to be discussed and developed based on the findings of research results of principal leadership's case in Indonesia because of the peculiarities of school characteristic and community as the user. The intensive and comprehensive of research and discussion will certainly contributed in deep understanding about leadership orientation and taxonomic hierarchy of principal's leadership behavior in Indonesia. It is very important and helpful to develop the quality of principal's leadership, which in turn will drive school's performance improvement in Indonesia.

This research was also found out that there were several dimension factors of principal's leadership and its interrelation with school performance. Based on the results of a rational study of these factors, they were then positioned as estrogen and endogen variable to increase school performance and then were grouped into four levels or stages of leadership dimension of SEM principal leadership on school performance. Level 1 leadership dimension consists of six factors, namely: 1) school planning, 2) school organization design, 3) principal trust, 4) observation and supervision, 5) human resources development, and 6) data utilization. Level 2 leadership dimension with five factors, namely: 1) division of leadership tasks, 2) administrative leadership staff, 3) teachers collaboration through MGMP, 4) learning quality, and 5) teacher performance. Level 3 leadership dimension with four factors, namely: 1) internal and external collaboration culture, 2) utilization of learning opportunities, 3) assessment for feedback, and 4) school condition improvement. Level 4 leadership dimension with four factors, namely: 1) motivation, enthusiasm, behavior, and learning culture, 2) improvement of student learning outcomes, 3) increased student attendance, and 4) school performance. It was suspected that factors or variables of all four leadership levels were direct or indirectly had mutual influenced on each other to form SEM of principal leadership behavior practice toward school performance improvement that could be seen in figure 4.4. Although there were differences in several factors due to difference characteristic of schools under study, these findings supported the results of research on the impact of leadership on students' outcomes (Sammons, Gu, Day, & Ko, 2011). However, our research was different, because the focus of

the research was <sup>12</sup> related to the tendency of the principal's leadership orientation. Moreover, the school performance parameters measured were not only based on increasing students' academic achievement, but based on the students' academic and non-academic achievement, national examination results, educator achievements, satisfaction of school residents, and public trust in schools.

Based on inter-relationship amongst the factors of school leadership which been formulated in conjectural SEM of principal's leadership behavior practice showed that this practiced was not directly influenced to the school performance improvement. <sup>29</sup> Principal's leadership practices through several actions or his leadership behavior were indeed intended to influence the positive change of the school performance, but the changed was happened through the operation effect of teacher's performance, learning process quality, also development of a conductive climate and culture of school collaboration and emphasizing high expectation on academic and non-academic achievements of students, national examination results, educator achievements, satisfaction of school residents, and public trust in schools which were the main parameters of the school performance. The changed was supported by the research result which explained that transformational instructional leadership which took place in an integrated manner had an effect <sup>11</sup> on school performance as measured by the quality of pedagogy and student achievement which was substantial (Marks & Printy, 2003).

Although the conjectural SEM produced in this research has not been empirically tested, but reminding the importance of the practice model of principal leadership which was always: 1) building a school climate in the form of disciplined behavior, orderly, and adhere to the norms, values, and rules, 2) encouraging learning motivation to all school residents, and 3) <sup>23</sup> developing collaboration culture, learning culture, utilizing feedback on the results of assessments, and continually improving the condition of the school environment. All of these variables were suspected to predict of positive change in student behavior and attendance as a midterm result which encouraged in improving academic achievement and in turn encouraged an increase in school performance. It was in-line with the result of other relevant study about the principal's leadership that showed that variations in classroom teaching were linked to principals' leadership through several channels. The strongest of which were <sup>28</sup> professional development quality and program coherence (Sebastian & Allensworth, 2012). Although there was a relatively strong suitability with another relevant result research, this SEM was still conjecture that still needed empirical testing through path analysis. Further research was still needed to test whether the conjectural SEM was tested so that its structure could be maintained or needed revising and according to the results of path analysis.

## CONCLUSION

1. The Leadership behavior exhibited by the principal is in accordance with the order of the taxonomic hierarchy of leadership behavior according to theory of York (2012), namely orientation to the task, relationships, change, and external.
2. There is a new taxonomic hierarchy of leadership behaviors that occurs in principals, namely: 1) Tasks Oriented, in the new behavior taxonomy: “provide technical guidance before carrying out the task” and “task implementation is designed together; 2) Relationship oriented, in the new behavior taxonomy: “make a visit to the teacher’s and or staff’s house”; 3) Changes oriented, in the new behavior taxonomy: “facilitate individual learning”; 4) External oriented, in the new behavior taxonomy: “prioritizing external parties”.
3. The alleged SEM, principals' leadership behavior practices towards school performance are organized into four levels of leadership dimensions, namely 1) Level 1 leadership dimension with six factors: school planning, school organization design, principal trust, observation and supervision, human resources development, and data utilization; 2) Level 2 leadership dimension with five factors: division of leadership tasks, administrative leadership staff, teachers collaboration through MGMP, learning quality, and teacher performance; 3) Level 3 leadership dimension with four factors: internal and external collaboration culture, utilization of learning opportunities, assessment for feedback, and school condition improvement; 4) Level 4 leadership dimension with four factors: motivation, enthusiasm, behavior, and learning culture, improvement of student learning outcomes, increased student attendance, and school performance.

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