

# THE INFLUENCE OF SELF-EFFICACY IN MEDIATED INDIVIDUAL CHARACTERISTICS ON LEADERSHIP LEARNING PERFORMANCE IN PT X

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## Abstract

The achievement of learning performance can create benefits for a company both in increasing employee competence and company productivity. The cost spent, however, is usually not proportional to the graduation rate and returns on the company. Self-efficacy is a performance predictor. Individual characteristics have a strong role in the effectiveness of learning. This research aims to test the role of individual characteristics in leadership learning performance with self-efficacy as a mediator variable. The data in this study are secondary data owned by PT X. This data were processed by parallel mediation analysis model using Macro PROCESS and SPSS software. The results showed that self-efficacy is able to mediate the role of individual characteristics in leadership learning performance. This research found that self-efficacy and continuous learning ability were able to partially mediate the role of individual characteristics in leadership learning performance. Thus, by adding indirect effect of mediator variable, it can further enhance the role of individual characteristics in leadership learning performance.

**Keywords:** Individual Characteristics, Leadership Learning Performance

## Abstract

Tercapainya kinerja pembelajaran dapat memberikan manfaat bagi perusahaan baik dalam peningkatan kompetensi karyawan maupun produktivitas perusahaan. Biaya yang dikeluarkan, bagaimanapun, biasanya tidak sebanding dengan tingkat kelulusan dan pengembalian perusahaan. Self-efficacy adalah prediktor kinerja. Karakteristik individu memiliki peran yang kuat dalam efektivitas pembelajaran. Penelitian ini bertujuan untuk menguji peran karakteristik individu dalam kinerja pembelajaran kepemimpinan dengan efikasi diri sebagai variabel mediator. Data dalam penelitian ini adalah data sekunder milik PT X. Data ini diolah dengan model analisis mediasi paralel menggunakan software Macro PROCESS dan SPSS. Hasil penelitian menunjukkan bahwa efikasi diri mampu memediasi peran karakteristik individu dalam kinerja pembelajaran kepemimpinan. Penelitian ini menemukan bahwa efikasi diri dan kemampuan belajar berkelanjutan secara parsial mampu memediasi peran karakteristik individu dalam kinerja pembelajaran kepemimpinan. Dengan demikian, dengan menambahkan pengaruh tidak langsung dari variabel mediator dapat lebih meningkatkan peran karakteristik individu dalam kinerja pembelajaran kepemimpinan.

**Keywords :** Karakteristik Individu, Performansi pembelajaran

## Introduction

Educators must understand each of their students' individual characteristics. By doing this will allow for an easier learning process. Adjusting the learning process will easily direct the students to reach the learning goals. Likewise leadership learning and understanding individual characteristics are very important in the teaching process. Therefore, understanding individual characteristics is very useful for educators to

select and determine a more appropriate teaching model, which can ensure facility in learning.

In the current era of globalization, development continuous to grow fast and demands excellence from all elements of a company. Human resources are one of supporting elements to achieve a company goals. Human resource development strategy is needed in the process of planning *human capital management system*, which has the goal of

improving the quality and work ability of human resources. One of the effective approaches in developing human resources in a company is to provide training that suits the needs of employees (Dessler, 2017).

Companies want optimal results from conducted training and learning. This is because when employees leave the workplace and attend learning classes financed by the company, a lots of resources are directed towards them in the workplace. Consequently, the rate of *return on training investment* (ROTI) has the goal of measuring the rate of return on learning investments conducted by a company. Throughout 2019, PT X (heretofore also “the company”) spent a total of Rp. 755 billion for competency development programs (*Sustainability Report* PT X in 2019). In 1.5 times the ROTI target was realized due to various technical matters (RJP PT X Pusdiklat in 2018-2022). This implies that the results of investments issued by the company had not been fully returned. The percentage of cost financed by PT X for leadership learning was 30%; this was the largest percentage of the total cost of learning.

The analysis of leadership learning performance data at PT X showed that there were several indicators that needed to get the attention of the company, namely the number of participants who failed and had remedial class in leadership learning at the basic level in the last three years were quite significant. The higher the number of participants who failed and had remedial class the higher the loss suffered by the company. This meant that the cost spent by the company was also greater and the employees left their job obligations longer.

Learning performance is defined as the validation process of the mastery of the material that has been studied. It has the purpose of making sure that participants can complete the training and pass the test successfully (Conzelmann & Keye, 2014; Shah,

2003). The better the quality of learning, the better the acquisition of knowledge, and the measure of learning performance is the score or grade (Poropat, 2009; Shah, 2003). Some of the terms used for learning performance in previous studies are *training grades* (Tziner et al., 2007), *course grades* (Klein et al., 2006), *post training* (Colquitt et al., 2000; Cunningham & Mahoney, 2004; Nease, 2000), *knowledge post training* (Nease, 2000; Tracey & Cardenas, 1996), *performance test* (Tannenbaum et al., 1991), *training performance* (Driskell et al., 1994; Jackson, 2017; Lievens et al., 2003; Ziegler et al., 2014), *learning outcomes, training outcomes* (Tracey & Tews, 2005). Based on the above studies, the final result or grade is a measure of learning or training performance. Therefore, the higher the number of participants of leadership learning who failed and had remedial class in PT X means that the performance of the basic level of leadership learning had not been achieved or was low.

Several factors that influence learning performance are individual characteristics, training design, and work environment (Baldwin & Ford, 1988; Kontoghiorghes, 2004). In the learning performance, a review about individual characteristics of participants has never been conducted by PT X, while training design and work environment have had mechanisms and standard procedures. This was supported by the reaction of satisfaction of participants towards training in accordance with the evaluation of learning. In these circumstances, PT X has paid attention to the quality of leadership learning, but this was still limited to the external side such as curriculum, procedures, facilities, design, and others. In fact, learning performance is also influenced from the internal aspects, such as the characteristics of participants. This is in line with previous research where individual characteristics have a strong role in the effectiveness of training (Blume et al., 2010;

Burke & Baldwin, 1999; Chiaburu & Marinova, 2005; Kontoghiorghes, 2004).

The individual characteristics of participants consist of *personality, ability, self efficacy, motivation, perceive utility/value, career/job variables, locus of control* (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Kontoghiorghes, 2004). The personality types have clearly predicted learning in schools, universities and companies.

Self-efficacy is one of the individual characteristics that can be an antecedent to learning (Burke & Hutchins, 2007). Self-efficacy affects an individual's activity, motivation, cognition, and emotion during the execution of a task in achieving performance (Galla & Wood, 2012). In this study, we use the variable of self-efficacy instead of motivation because according to John et al., (2010) the higher the level of self-efficacy, the more motivated a person will be in achieving goals. This is because the effort spent will be greater in facing existing problems; as a result the effective person will be more diligent in doing the task given and would be able to survive despite the pressures from the environment. Self-efficacy is a strong and stable performance predictor (Stajkovic & Luthans, 1998). It can also be used to predict performance in leadership (Paglis & Green, 2002). The increase of self-efficacy has a sustained effect on beliefs and behaviors that are reinforced in a supporting environment (Bandura, 2010). The study of Stajkovic & Luthans (1998) have found that there 114 studies on the relationship between self-efficacy and training performance and work performance. Based on previous research, it is believed that self-efficacy correlates with several behavioral elements of performance achievement including performance in learning.

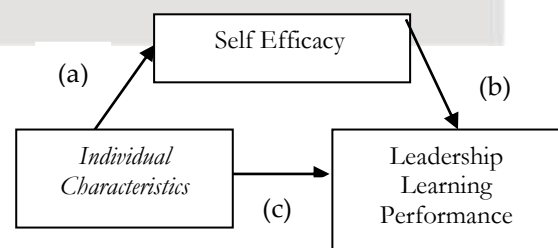
The next individual characteristic that affects learning performance is *ability*. *Ability* is an individual capability required in carrying

out various types of tasks and responsibilities (Robbins, 1990). One of the *abilities* that individuals need to succeed in learning is the continuous learning ability. Individuals with continuous learning ability are more likely to achieve success in training where there is an encouragement from individuals to learn and develop their full potential to complete the tasks better and have fewer errors (Zaitouni et al., 2020).

Personality is the basic tendency (psychological potential that is still abstract) of the individual; it is not a competency (characteristics that are manifested concretely) that can significantly be predicted from performance. Thus, potential (personality) requires something else or another variable that makes it into a competency. This is in line with the research of Caprara et al., (2011) which states that personality or personal values alone are not strong enough to form behavioral tendencies showed by individuals.

Leadership learning at PT X will always be conducted because it is a compulsory requirement to maintain structural positions and to support rank increases. Consequently, it is necessary to analyze the individual characteristics of previous participants of leadership learning. This research examines the role of leadership characteristics in leadership learning performance.

According to Baron & Kenny (1986), the dynamics of this research can be seen in figure 1.



**Figure 1.** Conceptual framework of interrelationships between Individual characteristics, self-efficacy, and leadership learning performance

**Hypothesis :** The role of self-efficacy mediates individual characteristics in leadership learning performance.

### Method

This research is a quantitative study that uses data from PT X (secondary data). There were three variables: leadership learning performance as a *dependent* variable, individual characteristics as an *independent* variable, and self-efficacy as a mediator variable. Learning performance was the total grade obtained by learning participants after carrying out leadership learning according to the weight set by the company. Individual characteristics are the tendency of individuals to control behavior, to be receptive to encouragement and be goal-oriented. General self-efficacy is a person's belief in his or her ability in various situations that creates performance in different conditions and fields.

**Respondents.** The respondents of the research are seen as having data on the variables studied and are the source for the research conclusion (Azwar, 2016). The respondents of this research are the participants of leadership learning who attended leadership learning at a basic level in 2018-2020 and who attended competency assessments; and attended the *personality* assessment.

**Instrument.** The leadership learning performance was measured by *test performance* based on PT X's basic level standard competency in three learning methods which are *games based training, lecture, and case study*. Meanwhile, the behavioral indicators include the ability to understand, perform, and create programs.

Individual characteristics were measured by a questionnaire developed by the company, namely the PT X *Personality Inventory* (PPI). The measurement was done by *self assessment* in the form of likert. The number of items in individual characteristic traits was 36 with a

score range of 1 - 6, Cronbach Alpha = 0.914,  $r = 0.202 - 0.609$ . The gauge has a fit model with RMSEA = 0.061, CFI = 0.877 and TLI = 0.855. Meanwhile, the facet indicators included *competence, order, dutifulness, achievement striving, self discipline, deliberation*.

Self-efficacy was measured by a questionnaire developed by the company, the PT X *Work Attitude*. The measurement was done with *self assessment* in the form of likert. The number of items in the dimension of self-efficacy was 10 with a score range of 1-4, Cronbach Alpha = 0.890,  $r = 0.200 - 0.702$ . The gauge has a fit model with RMSEA = 0.054, CFI = 0.973 and TLI = 0.969. Meanwhile, the indicators included : able to face difficulties, able to complete tasks, and able to present achievements.

**Analysis.** Classic assumption test and Hypothesis Test . The classic assumption test consisted of normality test, linearity test, heteroscedasticity and multicollinearity test. The hypothesis verification used *parallel mediation model* with *bootstrapping* method developed by (Hayes, 2018). The method focused on measuring indirect effect from independent variables to dependent variables through mediators to know whether the direct effect *was* significant (*partial mediation*) or not (*complete mediation*). The data were analysed using SPSS and PROCESS *software* from Hayes.

## Result and Discussion

### Research Description

The respondents of this research were described based on age, *tenure*, gender, and *workplace education*. From Table 1, it can be seen that the 594 respondents were dominated by respondents aged 36-40 years; the tenure was mostly around 11-15 years; the majority of respondents were male; and most of respondents had a bachelor degree (D4/S1 in Indonesia).



**Table 1. Distribution of Respondents**

No	Details	Frequency	Percentage
<b>(a) Age</b>			
1	31-35 years	98	16%
2	36-40 years	262	44%
3	41-45 years	84	14%
4	46-50 years	108	18%
5	51-56 years	42	7%
<b>(b) Tenure</b>			
1	6-10 years	50	8%
2	11-15 years	328	55%
3	16-20 years	54	8%
4	21-25 years	84	14%
5	26-30 years	62	10%
6	31-35 years	16	3%
<b>(c) Gender</b>			
1	Female	102	17%
2	Male	492	83%
<b>D Education</b>			
1	Senior High School	24	4%
2	Associate Degree/D3 (Diploma)	52	9%
3	Bachelor Degree (D4/S1)	414	70%
4	Master Degree (S2)	104	18%

### Correlation Test

The requirements for variables to act as mediator are the existence of a significant correlation between an independent variable to a mediator variable (*path a* and *d*), a correlation between a mediator variable to a dependent variable (*path b* and *e*), and a correlation between an independent variable to a dependent variable (*path c*) when *indirect effect* (*path ab* or *path de*) is included in the analysis. If the value of *c*' is insignificant, there is *complete mediation*. On the other hand, if the value of *c*' is significant, there is *partial mediation*. The role of the independent variable to the dependent variable after including the *indirect effect* is called the *total effect* (*path c*).

Based on the correlation matrix on the appendix, the correlation requirement had been met for mediation analysis. *Individual characteristics* are correlated with self-efficacy

and continuous learning ability. Self-efficacy and continuous learning ability are correlated to leadership learning performance both in total learning performance scores and scores at each stage of learning (*games based training, lecture, and case study*).

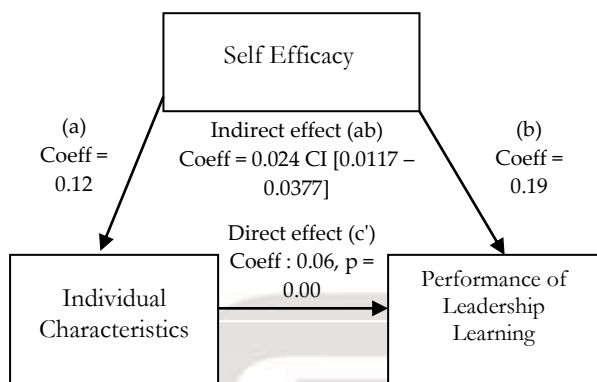
Additional findings include the level of education positively correlated to learning performance in the *case study* learning method. The higher the level of education of participants, the higher the learning scores at the *case study* learning stage. Meanwhile, for other learning methods such as *games-based training* and *lecture*, education levels did not play a significant role. In this research, the researcher also found that age negatively correlated with self-efficacy, continuous learning ability, and leadership learning performance. The older the age of participants, the lower the level of self-efficacy, continuous learning ability, and leadership learning performance.

### Assumption Test

Assumption test is used to find normality, linearity, heteroscedasticity, and multicollinearity. The results of the normality test using *kolmogorov-smirnov* showed that the data of this research were not spread normally with a value of  $p = 0.000$  ( $p > 0.05$ ). The data could still be used, because mediation analysis by Hayes (2018) did not require normal distributed data. Based on the linearity test, the relation between the variables in this research was linear with a value of  $p = 0.475$  ( $p > 0.05$ ). The result of heteroscedasticity test showed that the variables of this research came from a population that had the same variance value with a value of  $p = 0.063$  ( $p > 0.05$ ). Next, the result of the multicollinearity test showed that there was no collinearity between variables with tolerance value of 0.559 (tolerance  $> 0.10$ ) and VIF = 1.790 (VIF  $< 10$ ).

**Hypothesis Test**

*Leadership Learning Performance*



**Figure 2.** Direct and Indirect Effects of the Role of Individual Characteristics on Leadership Learning Performance

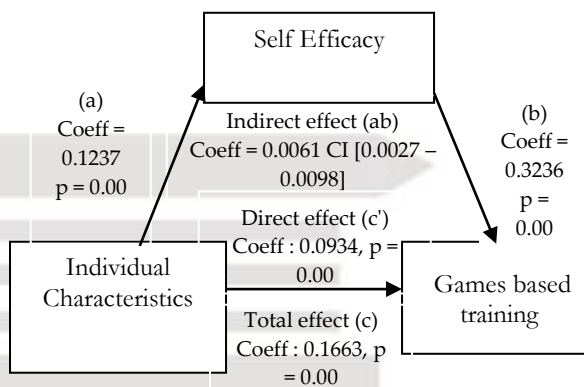
The result of the analysis showed that individual characteristics predicted self-efficacy significantly ( $p < 0.001$ ) with a coefficient value of 0.1237. Furthermore, self-efficacy predicted the leadership learning performance significantly ( $p < 0.001$ ) with a coefficient value of 0.1942. The total effect of individual characteristics on leadership learning performance was significant ( $p < 0.001$ ) with a coefficient value of 0.1111. The direct effect of individual characteristics on leadership learning performance was significant ( $p < 0.001$ ) with a coefficient value of 0.0669. While the analysis of indirect effect of individual characteristics on leadership learning performance through self-efficacy produced a coefficient value of 0.0240, BootLLCI=0.0117, and BootULCI=0.0377. This can be seen from the results of the analysis of *indirect effect* at *bootstrap confidence interval* that did not pass zero. Thus, it was proven that self-efficacy acted as a mediator between *individual characteristics* and leadership learning performance.

**Table 2. Summary Model**

R	R-sq	F	df1	df2	P
0.6598	0.4353	151.5967	3.0000	590.000	0.000

Individual characteristics, self-efficacy and continuous learning ability were jointly significant in explaining 43.53% variation in leadership learning performance.

*Games based training*



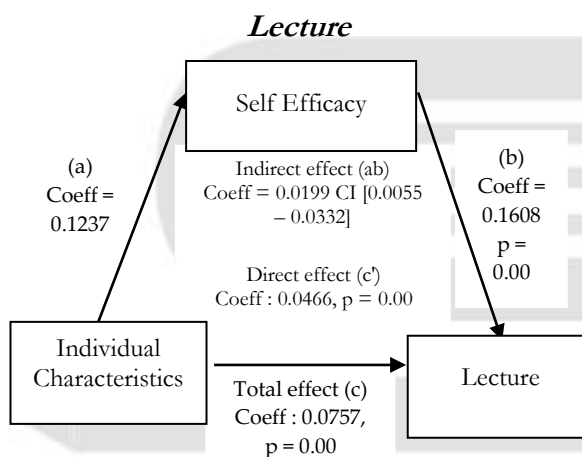
**Figure 3.** Direct and Indirect Effects of the Role of Individual Characteristics on Games Based Training

The result of the analysis showed that individual characteristics predicted self-efficacy significantly ( $p < 0.001$ ) with a coefficient value of 0.1237. Moreover, self-efficacy predicted the value of *games-based training* significantly ( $p < 0.001$ ) with a coefficient value of 0.3236. The total effect of individual characteristics on the value of games based training was significant ( $p < 0.001$ ) with a coefficient value of 0.1673. The direct effect of individual characteristics on the value of games based training was significant ( $p < 0.001$ ) with a coefficient value of 0.0834. While the analysis of indirect effect of individual characteristics towards the value of games based training produced a coefficient value of 0.0061, BootLLCI=0.0027 and BootULCI=0.0098. This can be seen from the result of the indirect effect analysis at bootstrap confidence interval that did not pass zero. Therefore, it was proven that self-efficacy acted as a mediator between individual characteristics and value of games based training (Appendix 6).

**Table 3. Summary Model**

R	R-sq	F	df1	df2	P
0.6220	0.3868	124.0715	3.0000	590.000	0.000

Individual characteristics and self-efficacy were significant in explaining 38.68% variation in leadership learning performance in *games-based training* method.



**Figure 4.** Direct and Indirect Effects of the Role of Individual Characteristics on the Lecture Method

The result of the analysis showed that individual characteristics predicted self-efficacy significantly ( $p < 0.001$ ) with a coefficient value of 0.1237. Moreover, self-efficacy predicted the value of *lecture* significantly ( $p < 0.001$ ) with a coefficient value of 0.1608. The total effect of individual characteristics on the value of *lecture* was significant ( $p < 0.001$ ) with a coefficient value of 0.0757. The direct effect of individual characteristics on the value of *lecture* was significant ( $p < 0.001$ ) with a coefficient value of 0.0486. While the analysis of indirect effect of individual characteristics on the value of *lecture* through self-efficacy produced a coefficient value of 0.0199,  $BootLLCI=0.0055$ , and  $BootULCI=0.0322$ . This can be seen from the result of the indirect effect analysis at bootstrap confidence interval that did not pass zero.

**Table 4. Summary Model**

R	R-sq	F	df1	df2	P
0.5396	0.212	80.8043	3.0000	590.000	0.000

Individual characteristics and self-efficacy were significant in explaining 21.12% variation in leadership learning performance using the *lecture* method.

The result of the analysis showed that individual characteristics predicted self-efficacy significantly ( $p < 0.001$ ) with a coefficient value of 0.1237. Furthermore, self-efficacy predicted the value of *case study* significantly ( $p < 0.001$ ) with a coefficient value of 0.3194. The total effect of individual characteristics on the value of *case study* was significant ( $p < 0.001$ ) with a coefficient value of 0.1160. The direct effect of individual characteristics on the value of *case study* was significant ( $p < 0.001$ ) with a coefficient value of 0.0471. While the analysis of indirect effect of individual characteristics on the value of *case study* through self-efficacy produced a coefficient value of 0.0395,  $BootLLCI=0.0205$  and  $BootULCI=0.0593$ . This can be seen from the result of the indirect effect analysis at bootstrap confidence interval that did not pass zero. Therefore, it was proven that self-efficacy acted as a mediator between individual characteristics and *case study*.

**Table 5. Summary Model**

R	R-sq	F	df1	df2	P
0.5913	0.3796	105.7310	3.0000	590.000	0.000

Individual characteristics and self-efficacy were significant in explaining 37.96% variation in leadership learning performance using the *case study* method.

Based on the above analysis, the hypothesis in this research was accepted. It showed that self-efficacy was proven to have a role as a partial mediator between individual characteristics and leadership learning performance.

## Discussion

The research resulted in the finding that self-efficacy acted as a partial mediator, given the significant role of individual characteristics towards the leadership learning performance. When more detailed tests of each learning stage with different training methods such as *games-based training*, *lecture*, and *case study* were conducted, it was found that self-efficacy was able to partially mediate the role of individual characteristics towards performance at each stage of leadership learning. This is in line with previous research in which individual characteristics had a strong role in the effectiveness of training (Blume et al., 2010; Burke & Baldwin, 1999; Chiaburu & Marinova, 2005; Kontoghiorghes, 2004). Several factors that influence learning performance are individual characteristics, training design, and work environment (Baldwin & Ford, 1988; Kontoghiorghes, 2004).

Self-efficacy as a mediator can strengthen the role of individual characteristics in leadership learning performance. Individuals with high self-efficacy have self-mechanisms that make them able to control their thoughts, feelings, and actions chosen (Bandura, 2012). Consequently, the participants tend to have learning strategies, offer more persistent attempts, be motivated and diligent when doing tasks or facing challenges in learning. The results of this study contribute to studies that examine the integration of *trait theory* with *social cognitive theory*, which support the assumption that individuals who believe in self-capacity can change his basic character to conform to certain behaviors (Caprara et al., 2011; Di Giunta et al., 2013; Judge et al., 2007). Self-efficacy is one of the strong and stable predictors of performance, and can even predict performance in leadership (Paglis & Green, 2002). This is because the achievement for leadership learning is to increase employee

competence so that if the participants have high self-efficacy, they will contribute to the improvement of leadership learning performance.

The smallest contribution of the role of self-efficacy as a mediator was in the *lecture* learning method. In this learning method, the participants were required to understand the material that used one-direction delivery format, from the instructor to the participants, and which contained various theories in accordance with the standard of graduation competence that has been set (Martin et al., 2014). Meanwhile, in the dimension of cognitive process, the participants must use their memory to be able to pass this learning because the *performance test* used is at the level 2 of Bloom's taxonomy (Krathwohl, 2002). Memory is often referred to as remembrance; it is actually a mental role that captures the meaning of a stimulus and is a system of information and insight storage that resides in the human brain (Shah, 2003). Because this learning method was strongly influenced by cognitive factors, the variables of self-efficacy and continuous learning ability in this research played the smallest role.

The largest contribution of the role of self-efficacy as a mediator was in the *play-learning* method. At this stage of learning the participants are required to be able to perform the role of leader and compete with other participants or collaborate with teams doing predetermined tasks, explore some alternative strategies by minimizing the risks that may arise for other individuals or organizations (Martin et al., 2014). The cognitive dimension in this learning according to Bloom's taxonomy is at level 3 which is *apply* (Krathwohl, 2002). This includes: (1) *Executing*, at this stage of learning, the participants were required to be able to make planning by gathering information from the given task, then formulating problems, creating a program to solve and executing the program; (2)



*Implementing*, the participants were not only required to compile an improvement program, but also to implement the program even though it was still in a limited context such as a simulation in training. Therefore, in the learning stage “*games-based training*”/playing required consistency, collaboration, confidence and the ability to apply knowledge. Consequently, the variables of self-efficacy and continuous learning ability in this research played the most role.

In the process, it was found that *individual characteristics* also played a significant role in leadership learning performance. *Individual characteristics* is an individual asset that supports the learning institutionally. The learning process is seen as a validation process for the mastery of knowledge of the material that has been studied. At the standard of measurement, the better the learning quality, the better the knowledge acquisition on the part of the participants. In accordance with the meta-analysis conducted by Poropat (2009), academic performance based on GPA average scores is more correlated with *individual characteristics* of personality type. The overall *individual characteristics* in facet form triggered by (McCrae & Costa, 2005) are *competence, order, dutifulness, achievement striving, self-discipline, deliberation*, manifested in leadership learning, in which the participants must have *competence*, i.e. ability, effectiveness, and strategy in carrying out leadership learning, which consists of several stages and learning methods. In the process of training, the participants were required to give *orders* in role simulation as leaders in *games-based training* learning stage, and formulate problems and compile a program of improvement of the tasks determined by the coach. The characteristics of *dutifulness* and *achievement striving* were reflected in the needs of individuals in achieving goals, gaining knowledge, and achieving optimal learning scores. The aim of the knowledge gained in

leadership learning is to be a successful leader. In the learning process, the successful trainees were the participants who have *self-discipline* in adjusting their roles as participants in the learning class and when becoming *trainees* at the *case study* learning stage. In the implementation of *on-the-job training*, the participants must also have the character of *deliberation*, which allows them to make *trainees* see the problems in the work unit in a systematic manner and make improvements to the program or *project assignment* in regard to the opportunities in the work unit in such a way as to increase the productivity of the company.

The number of participants who failed and had remedial class was mostly in the *case study* learning method. According to Bloom's taxonomy, this learning method is already in the cognitive dimension level 6, *create*. In this level, the participants were required to show evidence that they are worthy of the position in which they placed. The participants already had knowledge of the competencies required to serve in the position and were able to think critically and analyze at problems in the field systematically. They also were able to find information on the use of existing resources and compile an improvement program by forming a *project assignment*, which was submitted and answered for the board of examiners, who were the tutors and mentors of the participants' *project assignment*. After that, they implemented the program in the work unit. At this learning level, in addition to the provision of the potential and characteristics of the individual itself, the success of learning was also related to external factors, namely, the participants must have resources and access to data that can help the collection of information. Support in the work environment also determined the success of the implementation of the improvement program that has been formulated. The level of education also correlated to this learning

method. The participants who had a higher level of education were proven to be capable of better performance in learning as well. This was because in the previous learning process, participants had realized the manifestation of learning behavior that emerged during the next learning, which included (1) Manifestations of habits, which in the process of habituation learning also include the reduction of unnecessary behavior. (2) Participants were able to manifest skills, observation, associative thinking; and participants who have experienced the learning process will be characterized by an increase of material storage (knowledge and understanding) in the memory and an increased ability to connect the material with concrete situations or stimuli being faced. (3) Participants engage in rational and critical thinking. (4) Participants behave affectively, where one can be considered to be effectively successful in learning if he has come to realize that knowledge is beneficial for him in the future (Shah, 2003).

Worth discussing is the age of the learning participants, as individual characteristics are correlated negatively and significantly with variables of self-efficacy, continuous learning ability, and leadership learning performance. Participants with increasing age: their self-efficacy, continuous learning ability and leadership learning performance are lower because as one gets older, one's capacity decreases in terms of observation, memory, understanding, application and analysis that are needed for learning. In regard to the affective aspect, acceptance, appreciation, internalization and imagination also begin to decrease. Thus, in regard to the psychomotor aspect, a person begins to move and act in a limited fashion and begins to express in verbal and non-verbal modes of communication (Shah, 2003).

## Conclusion

Based on the result of this research, it was found that self-efficacy and continuous learning ability were able to partially mediate the role of individual characteristics with leadership learning performance. The indirect effect of mediator variable further enhanced the role of individual characteristics in leadership learning performance. This is the difference of our studies from previous research. The results of this study has shown that the proposed conceptual model is supported by empirical data; as a result, the proposed hypothesis was accepted.

The largest contribution of the role of self-efficacy as a mediator was in *games-based training* learning method, while the smallest contribution was in *lecture* learning method.

Other individual characteristic factors that significantly correlated with leadership learning performance were age and education level. Age negatively correlated with all variables in the research and education level positively correlated with performance in the *case-study* learning method.

## Implications

Companies can improve leadership learning outcomes by conducting individual capacity enhancing programs before the learning implementation. Training or *pre-training* can be implemented for a *booster* of self-efficacy and continuous learning ability. The efforts in the form of continuous development programs to improve the ability of prospective participants will affect the improvement of leadership learning performance in the future.

Some requirements for prospective learning participants can be added to the decree of the head of training facility (pusdiklat), since age and level of education play a role in the performance of leadership learning.

Future research should continue to examine the effect of leadership learning performance with the performance of leaders in the work unit to verify the true value of the return of training investment of companies.

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