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# A STUDY OF THE EFFECTIVENESS OF MANAGEMENT DEVELOPMENT PROGRAM

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## Keywords:

Action Learning  
Management Development  
Program Partial Least Square  
Training Evaluation

**Abstract.** The purpose of this study is to analyze the effectiveness of MDP training focused on: (1) analyzing the effect of training in the classroom (in class training = ICT) to the training project assignment (action learning = AL), and (2) analyzing the effect of MDP training on individual performance. The object of the research used in this study is a company that has developed its human resources through management development program (MDP). The data used in this research is secondary data obtained from the results of the participants during the training. The approach used in this study is the approach to quantitative analysis of secondary data such as the results of the evaluation during the MDP training. The data were then analyzed using SEM-PLS Smart software. The findings of this study indicate that ICT had a significant positive effect on the AL, while ICT and AL did not have an effect to the individual performance (IP). The most indicators reflect ICT is a comprehensive score, i.e. a score that indicates the ability to analyze. And the value of implementing an indicator that gives the largest contribution in measuring AL variables. The benefit of this research, in practice, can be used as a reference company in conducting the MDP training.

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## INTRODUCTION

### Background

One of the efforts of an organization to enhance the competencies and skills of their human resources was providing a training program. Training is a systematic change process of knowledge, competencies, attitude and behavior which is clearly defined and measurable (Robbins, 2001). Noe (2008) defines training as a planned effort by an organization in order to facilitate staff with a learning of competencies related to their work. Improving managerial skills in the organization was usually supported through a training which was called by Management Development Program (MDP).

MDP was a strategic element in an organization (Savaneviciene, 2008) in order to develop managerial competencies and to enable the organization to achieve the goal. The program was acknowledged as an important tool needed by different organization including small scale organization up to multi-national, commercial as well as non-profit organization. MDP was not only meant for new manager, but it was also for experienced manager.

One of the MDP main goals was to enhance the staff competencies by informing them the current and future expectation, and by preparing them so that they would have instruments to achieve the defined goals.

The goal of training was to enhance the knowledge, and through

action, the goal was performance result. Meanwhile, the enhancement of organization performance and career development were influenced by many factors either from the system or organization environment.

Each organization expected that the training would attend the defined goals. One of the ways to ensure that the training met the goals was through training evaluation. Training evaluation was a process of collecting results to check whether the training was effective or not (Noe, 2008). Furthermore, according to Phillips (1997) a training evaluation was to ensure behavior change as the results of training program.

There were a lot of researches that already discussed about training evaluation, but so far the evaluation was only focusing on reaction and knowledge evaluation (Al-Athari & Zairi, 2002). There was very few that analyzed the relations among the training evaluation steps. This research analyzed the connection between in class training and evaluation of training implementation (action learning). It also analyzed the impact of MDP training towards individual performance.

The object of the research was an organization that developed human resources through a MDP. The data used in the research is secondary data. The data is then analyzed using SEM-PLS methods using Smart PLS software.

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### Research Objectives

The goals of the research are to analyze the effectiveness of MDP training which focused on: (1) the impact of the in class training towards assignment of training project (action learning), and (2) the impact of MDP training for individual performance.

### LITERATURE REVIEW

The research utilized some theories generated from the previous researches, i.e. management development program, training evaluation and performance assessment.

#### Management Development Program

Therefore, it could be concluded that the target of management development program was to enhance the competencies of managers which then improved their performance and eventually they gave impact to organization performance. In this case, most definitions mentioned that management development activity more focused on organization targets rather than personal or individual intentions. It viewed manager as organization resources and learning management was noticed as an initiator of functional performance. It emphasized enhancement or effectiveness of managerial competencies to attend the goals of organization performance. It focused on management development as planned and deliberate activity which was strategic-oriented.

#### Training Evaluation

There were some types of training evaluation found by (Phillips, 1997). They included evaluation towards reaction, learning, attitude and work results. Furthermore, Phillips (1997) evaluated training based on Return on Training Investment. Training evaluation must be planned from the beginning. It included what would be measured, how to measure, when to measure, who is the presenter, who is responsible of measuring and how much the training cost is. These things were applied to each objective of evaluation which consisted of reaction, learning, performance attitude, unit performance, and organization performance.

#### Performance

There were different performances based on scope, unit or work level. One's performance in the training, his performance during action learning, and his performance in the organization had different scopes.

The success of the training in the classroom depended on different variables including training objectives, participants, training leaders, materials methods and environment. Meanwhile, performance of applying training was determined by wider factors. Baldwin and Ford (1988) referred to three important factors in implementing the results of training, (1) characteristics of training participants which consisted of participants' competencies, their personalities and expectation towards the training, (2) training design, i.e. how would the training be

prepared and delivered to enhance their competencies in transferring what they had learnt to their current job (Holton, 2000) (3) work environment, i.e. the impact of the transferring process which happened outside the learning (Burke & Hutchins, 2008).

In the wider scope, according to Bohlander and Snell (2013) performance was defined as a function of interaction between ability, motivation and environment. Mathematically, it was formulated as follows:

$$P = f(A \times M \times E)$$

Notes:

•P = Performance

A = Ability, i.e. capability to define or carry out a system in utilizing resources and technology effectively and efficiently in order to achieve optimal results. Ability included technical, interpersonal competencies, capability to deal with challenges, analytical capacity, communication skills and physical-limited capability)

M = Motivation, eagerness and seriousness owned by a staff to do his duties properly and in disciplinary manner in order to attain his work achievement optimally. Motivation (spirit to pursue his career, hope and objective, work satisfaction and frustration, fairness perception, relationship with others.

E = Environment. It included tools, work design, economy level status, rule and policy, management supports, law and regulations. Based on the description above, it could be concluded that performance had a certain scope so that in order to measure the performance, one must consider which scope that would be used.

### RESEARCH METHOD

#### Location and Time of Research

This research was carried out in an organization which provided telecommunication services and already held an MDP. The MDP training was held in December 2013. Some of the secondary data was taken in December 2013, and to complete them, data was taken again in May 2014.

#### Research Approach

The approach in the research was case study. Case study method was a descriptive research based on data i.e. score of MDP training results

#### Data Types and Resources

Data in the research was the secondary data. The data was generated from documents and archives of the organization. They were reports of MDP training.

The secondary data was collected from the documents and archives available in the organization. The methods were collecting-document and retrieving-archive methods.

The secondary data from the score results of all participants consisting of:

Participating Scores were generated from direct observation of the instructor. They included the aspect of active participation and contribution during in the classroom.

Post-test Scores were generated from the assessment of the participants' answers. It assessed their understanding of the training materials.

Comprehensive Scores were from the assessment of case analysis related to the material. It focused on the analytical skills of the participants.

Proposal Scores were taken from the assessment of proposal report and presentation (Project Plan) carried out by the mentoring coach and the internal coach by using assessment forms. Coaching Scores were from coaching assessment at the process of designing proposal and Project Implementation process. Implementation Scores were generated from assessment of report writing of Project Implementation, which was executed by the mentoring coach and internal coach by using assessment forms. Individual performance Scores were taken from the assessment of his supervisor concerning the concerned individual performances.

**Data Collection Techniques**

The secondary data was collected from the documents and archives available in the organization. The methods were collecting-document and retrieving-archive methods.

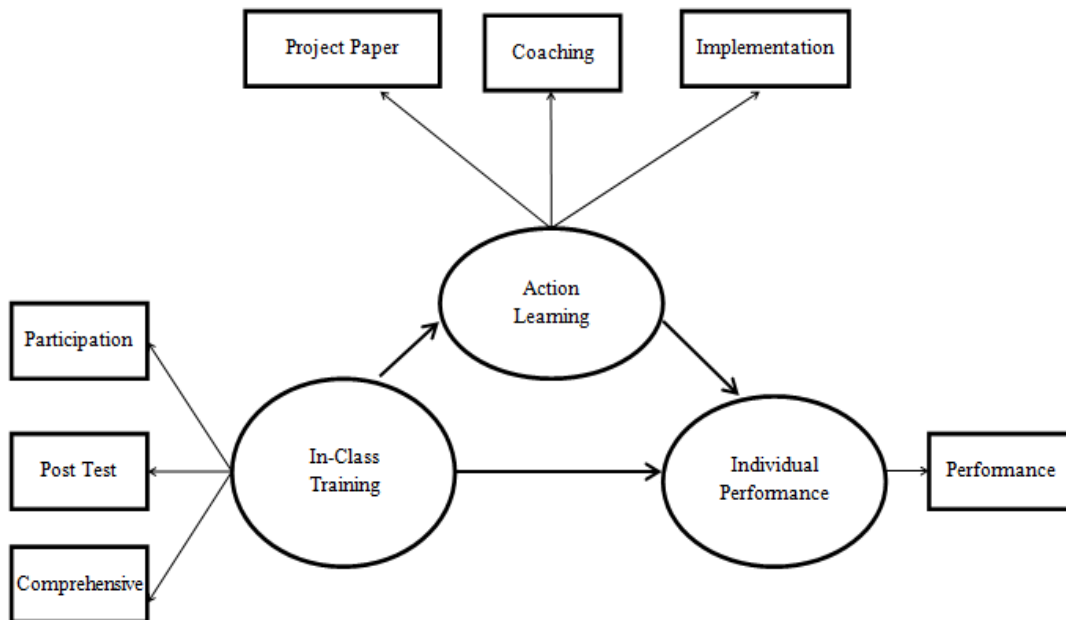
**Data Management and Analysis Techniques**

Data analysis used in the research was quantitative analysis. The objectives of the research were analyzing the impact of in class training towards action learning and analyzing the impact of MDP training towards individual performances. This also analyzed secondary data which was evaluation result of the MDP training participants. It utilized analysis of SEM-PS PLS (Structural Equation Modeling-Partial Least Square). The research tested the validity and reliability of each reflective indicator measuring latent variables of ICT, AL and IP. The measurement of individual reflection was valid when it had a loading score ( $\lambda$ ) with latent variable  $\geq 0.5$ . A variable was reliable enough when it owned construct reliability (CR) score which was more than 0.7 and the variance extracted (VE) was more than 0.5. The hypothesis ( $\beta$ ,  $\gamma$ , dan  $\lambda$ ) was tested by using a method of re-sampling bootstrap with assessing statistic of t statistic and t assessment.

**RESEARCH MODELS**

The research was using three latent variables and their indicators in order to assess the validity of measurement and its causative relation, i. e. in class training (participative, post test, comprehensive), action learning (proposal, coaching, implementation) and Individual performance (performance), as shown at the following picture (Picture 1).

**FIGURE 1**  
**Research Model**



**TABLE 1**  
**Definition and Measurement of Research Variables**

Latent Variables	Definition	Indicator	Measurement Scale
In Class Training (ICT)	The success of participants in attending the in class training	Participation Score	Ratio Scale
Action Learning (AL)	The success of participants in implementing the	ComprehensionScore	Ratio Scale
Individual Performance (IP)	Assessment of Individual performance after attending	1. Project Paper score 2. Coaching score (Performance appraisal)	Interval Scale

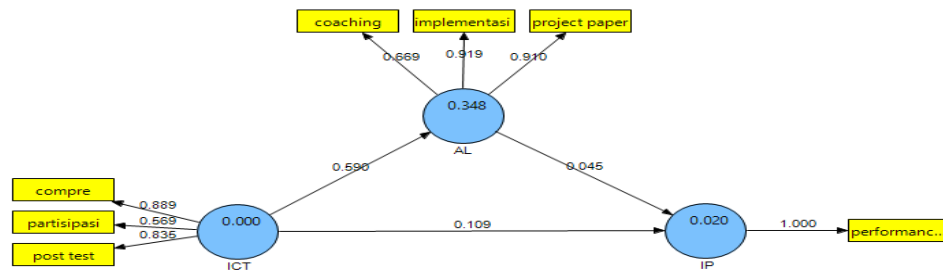
**RESULTS AND DISCUSSION**

**MDP Implementation**

MDP training in the organization was a training for enhancing managerial competencies for the staff who were already at the first manager position. The training was for 6 months and it consisted of 2 workshops. Each workshop was held in class training (ICT) and the rest was utilized for action learning (AL). MDP training was attended by 33 people whose age was at 34 up

to 49 years old and their work experiences as a manager were on average of 4 years. During the training, there were some evaluations including participation, post-test, comprehensive evaluation, proposal project paper, coaching and implementation. Then the six evaluations were categorized into assessment in class training (ICT) and assessment of action learning (AL). The valid data in the research included 30 staff.

**FIGURE 2**  
**Model Coefficient Score**



The number of analyzed data included small sample category so the analysis was using SEM-PLS method. The result of data processing which used SEM-PLS method with software SmartPLS software was shown at Picture 2 for the model coefficient score and Picture 3 for score of t-count model

coefficient. Picture 2 indicated the scores of factor which was positive and the coefficient score inter construct which was also positive, meanwhile picture 3 showed the significance of causative connection score among variables of ICT, AL and IP.

**FIGURE 3**  
**Score of T-Count Model**

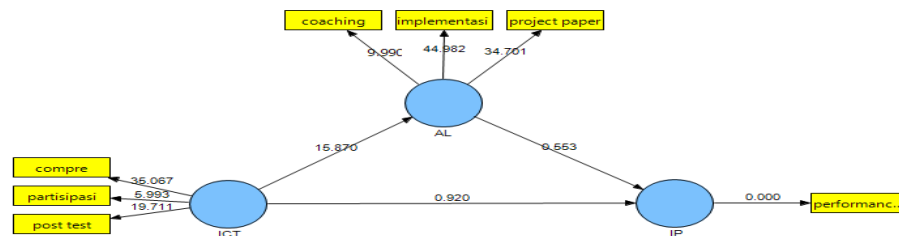


Table 2 indicated that a connection between latent variables and indicators. The figure which was between latent variables and

indicators was standardized loading factor score which measured konstruk. In order to measure konstruk of ICT, indicator validity

of participant score=0.569, post test score =0.835, comprehensive score = 0.889. Meanwhile, in order to measure kongsrak of AL indicator validity of proposal score=0.910, coaching score= 0.669 implementation score= 0.919. All standardized loading factor scores were valid (above 0.5).

Indicator validity of participation score=0.569, post test score=0.835, comprehensive score=0.889 in order to measure kongsrak of ICT. The figures showed that the sequence indicator that was most contributing towards ICT was comprehensive score, post test score and the least contributing was participation score.

Comprehensive score indicated the analytical competencies; post test score demonstrated capability to understand the training materials; and participation score showed capacity to ask the questions and promote the ideas. Therefore, the competencies to contribute mostly towards ICT were analytical capability.

The capability to analyze was mostly needed since ICT at MDP training was utilizing various methods consisting of lectures, case study, exercise, games. All of them required analytical capability. Training method pushed participants to analyze a case using

material provided at the training. Therefore, automatically, the analytical competencies of the participants would be improved.

Capability to analyze was mostly required since ICT at MDP training utilized various methods consisting of lectures, case study, exercise, games.

All of them required analytical capability. Training method pushed participants to analyze a case using material provided at the training. Therefore, automatically, the analytical competencies of the participants would be improved.

The results of the research showed that comprehensive score were most reflecting ICT. Possibly it was because the analysis results of participants were very different so that it generated the various scores.

Furthermore, to measure the kongsrak of AL, indicator validity of proposal score=0.910, coaching score=0.669, implementation score=0.919.

Proposal score showed capacity to express corrective ideas, coaching score indicated that participants were able to receive and understand feedbacks delivered by the 'coach', and proposal score was capacity of the participants in order to deliver their corrective ideas.

**TABLE 2**  
**Outer Loadings (Mean, STDEV, T-Values)**

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>Standard Error (STERR)</b>	<b>T Statistics (O/STERR)</b>
Participation <- ICT	0.568848	0.558261	0.094918	0.094918	5.993034
Post test<- ICT	0.835379	0.829625	0.042382	0.042382	19.710510
Compre<- ICT	0.889368	0.888048	0.025362	0.025362	35.066901
Project paper <- AL	0.909945	0.907266	0.026223	0.026223	34.700650
Coaching <- AL	0.669141	0.662789	0.066981	0.066981	9.990086
Implementation <- AL	0.919034	0.920037	0.020431	0.020431	44.981812
Performance13 <- IP	1.000000	1.000000	0.000000		

From the three indicators it was obvious that implementation score was the indicator which gave the biggest contribution in

measuring AL variables (0.919), it was followed by proposal score. And the least contribution was coaching score. According

to Spencer (2011) the research of coaching roles showed that coaching had a role in the process of implementing training results. This happened possibly because implementation was that an activity was focused on and was done in a relatively longer

period so that the participants did that more seriously. Consequently, the contribution was the biggest. Meanwhile, coaching was only done in two occasions.

**TABLE 3**  
**Path Coefficients (Mean, STDEV, T-Values)**

Connection	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ((O/STERR))
AL -> IP	0.044629	0.039085	0.080743	0.080743	0.552729
ICT -> AL	0.589546	0.606253	0.037147	0.037147	15.870456
ICT -> IP	0.109445	0.113085	0.118936	0.118936	0.920204

Table 3 indicated that coefficient values line and results of assessing-t. The coefficient score of the ICT impact towards AL (0.590) which was significant with score of t-counting of 15.870. The AL impact towards IP (0.045) and the ICT impact towards IP (0.109) were not significant. It was because the t-counting score

was 0.5527 and 0.9202 each (below 1.96). Based on the results, it could be concluded that ICT gave positive impact to AL significantly; meanwhile ICT and AL did not give impact towards individual performance.

**TABLE 4**  
**Total Effects (Mean, STDEV, T-Values)**

Connection	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ((O/STERR))
AL -> IP	0.044629	0.039085	0.080743	0.080743	0.552729
ICT -> AL	0.589546	0.606253	0.037147	0.037147	15.870456
ICT -> IP	0.135756	0.136989	0.096040	0.096040	1.413542

Table 4 showed that total effect of ICT towards IP was 0.135756. Total effect was addition of direct impact of ICT towards IP (0.109945) and indirect impact of ICT towards IP through AL was (0.589546 x 0.044629). The calculation indicated that the indirect effect was less than direct effect. In other words, AL did not strengthen the impact of ICT towards IP.

It was different from the research of Suutari and Viitala, (2008) that management must be learnt through experiences, taking role and being responsible as a manager. Action learning was carried out together in formal management training through learning

experiences. The ways were recommended by manager and participants of the training.

The difference could occur for several factors. One of them was different approach of the research. The research utilized quantitative data which was an assessment of the training results. Meanwhile, the previous researches used quantitative data as a result of questionnaires completed by the participants.

Score of determined coefficient ( $R_2$ ) for variable AL was 0.348. It showed that the diversity in AL could be explained by the various factor of ICT which was 34.8%, so that 65.2% was

influenced by other factors other than ICT. The analysis result indicated that ICT gave significantly impact to AL. This was in accordance with the previous researches which stated that the experience in the work place encourage a beginner to become an expert. However, it was necessary to develop the insight through the in-class training.

Measuring the effectiveness of a training focused on MDP training was an evaluation of implementation level (action learning) and individual performance assessment (individual performance). The reason to evaluate at the level was that the

evaluation at the level of implementation already showed the results of the transfer of training (generalization: compliance with using concept learnt in the class with the implementation in the workplace). So, the utilized information was the results of score granted to the participants up to the level of accomplishment of action learning in the period of 1 up to 60 days after the training (Furjanic & Trotman, 2000).

The positive transfer of training was defined as level of success of the training participants in implementing the learnt knowledge, competencies and attitudes learnt into the workplace (Baldwin & Ford 1988). The training was effective when the competencies and attitudes which were learnt and practised in the training could be implemented in workplace.

Jacobs and Jones (1995) provided comprehensive guidance to design, deliver and evaluate structures on-the-job training. They stated that on the job training (OJT) was structured differently compared to the experienced OJT in terms of efficiency and effectiveness. The structured OJT system must be evaluated objectively concerning the contribution towards the objective and performance of the organization.

The next analysis result showed that determined coefficient score (R<sup>2</sup>) for IP variable was 0.020. It defined that the diversity in IP could be only described by factors of ICT and AL which was 2%, up to 98%. It was influenced by the factors other than AL and ICT. This indicated that the MDP training didn't give impact towards IP. It was different from the results of the previous researcher that showed that there was a significant connection between training for machinery operator and individual performance. It occurred because in the training for hardskill, it was easier and faster to notice the change. Meanwhile in the softskill training, it would take longer time (Laker & Powell, 2006). MDP training supported the participants to improve their knowledge and competencies in managerial area. Those knowledge and competencies were factors which gave impact to the enhancement of competencies. There were some other factors that also influence the enhancement. Competencies directed one's attitude and shaped his competencies. And competencies were significant factors to the individual performances. To achieve the excellent individual performances, it required some competencies and it was determined by other factors such as motivation and environment.

## CONCLUSION

After processing the data and discussing the research model, it could be concluded that:

1. The participants' performances during the ICT training gave impact to the achievement in implementing the training results (AL) i.e. 34.8%, so the other 65.2% was influenced by factors other than ICT. There were a lot of factors contributing to the success of the implementation of training results (AL) such as individual characteristics, training design and work environment.
2. The performance during training (ICT) was reflected by indicators of analytical competencies, understanding material capability, and capacity to ask the questions and promote the ideas. The indicator which was mostly contributed to the ICT was indicator of analytical competencies.
3. Indicator which contributed to the performance during executing the assignment (AL) was proposal score, coaching score and implementation score. Among those three indicators, it was implementation score which contributed most. It was followed by proposal score and the least contributing one was coaching score. The implementation score showed capability to apply the corrective ideas; proposal score indicated capacity to share corrective ideas; coaching score showed competencies to receive feedbacks.

## SUGGESTIONS

Concerning the finding in the research, it could be suggested to the next researchers and manager of human resources development in the organization some suggestions as follows:

Suggestion for the next researchers for upcoming research:

- The research was done during the MDP training held in an organization. In order to clearer picture, it is suggested to research in two different organizations which had many various aspects.

Suggestion for the manager of human resources development in the organization:

- As a manager of MDP training, in order to enhance the achievement of action learning, it is suggested to have corrective action during in class training, particularly focus on comprehensive competencies.

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