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# Effectiveness of the AMOVIE Model in the Implementation of the Partnership Program of Vocational School Teachers with Industrial Community

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## Abstract

This article concerns a certain piece of research whose objective was to know the effectiveness of the model called AMOVIE, as short for Achievement Motivation Training (AMT), On-the-Job Training (OJT), Visual Exhibition, and Evaluation, in the implementation of the partnership program of vocational school teachers with industrial community held by the Sub-Directorate of Human Resource Development (HRD) of vocational education. The research used a quasi-experimental method with the principle that there would be effectiveness when the results of the treatment (or experimental) group were better than those of the control group. The research population consisted of 236 participants in the partnership program of vocational school teachers with industrial community, with those involved in the program in 2015 serving as the treatment group that had used the AMOVIE model and those involved in 2014 serving as the control group that had not used the model. By means of simple random sampling, 180 of the population were taken as sample. The data were collected by means of observation and evaluation of participants' performance during OJT by mentor, of the participants' post-OJT performance by the principal, and of the program results at the time of the visual exhibition by the program facilitator team. The data were analyzed by using the independent sample t-test. The research results indicate that the AMOVIE model proves to be effective in being used to implement the program of the partnership between vocational school teachers and industrial community because (a) the mean score for participants' performance during OJT of the treatment group has been slightly better than that of the control group (the respective mean scores

being 9.2 and 9.0) since the independent sample t-test has resulted in  $t_{obtained}=1.092$  with  $sig.=0.276$ , indicating no difference in performance between the treatment group and the control group; (b) there has been difference in post-OJT participants' performance between the treatment group and the control group since  $t_{obtained}=-6.7$  with  $sig. = 0.00$ ; and (c) the mean score for program results of the treatment group has been better than that of the control group, with the respective mean scores being 7.7 and 7.1, and the independent sample t-test resulting in  $t_{obtained}=5.996$  with  $sig. = 0.00$ , indicating difference in program results between the treatment group and the control group.

**Key words:** partnership, achievement motivation training, on the job training

## Introduction

The 'vocational school' graduates' absorption power into the world of work is still relatively low in degree or, in the case of such graduates, there is a possible misallocation of human resources. The Central Agency of Statistics' notes that vocational school graduates' rate of open unemployment is reflected in the fact of 1,348,327 of them being unemployed in February 2016 while data in 2015 indicate unemployed vocational school graduates 1,174,366 in number in February and 1,569,690 in number in August [1]. The high unemployment rate is caused by, among others, a mismatch between the supply of workforce and the demand from the world of business or industry. Sgobbi and Suleman cite Guinness' opinion that long-lasting educational mismatch is justified only by heterogeneity in the ability of employees with the same educational qualification, an issue increasingly explored by the-

oretical and empirical contributions, and the growing awareness of the heterogeneous distribution of capabilities among employees has progressively re-focused the research questions on educational mismatch on whether educational qualification is an acceptable proxy of skill mismatch [2].

The development of science, technology, and art the industrial community often occurs faster than that occurring at vocational education. It often causes a gap between the competence possessed by vocational education graduates and that required by the industrial community. To prevent the occurrence of misallocation of human resources, the Directorate of HRD (human resource development) of 'Secondary or Middle Education' in the period from 2009 to 2015 had the policy of harmonizing education with the requirements or demands of the industrial community. The policy was implemented through several programs, one of which was the partnership program of vocational school teachers with industrial community. Hopefully, through the partnership program, teachers could transfer the competence to their students.

An effective and efficient implementation of vocational education is one that is able to provide real work experience. Prosser and Quigley state, among others, that vocational education is effectively and efficiently implemented if (1) the training environment is the working environment itself or a replica of the working environment; (2) the training jobs are carried on in the same way as in the occupation itself; (3) the instructor is himself master of the skills and knowledge he teaches; and (4) the training meets the market demands for labor whatever these may be in any given occupation. These abovementioned four principles would be more easily realized if vocational education has a collaboration with industrial community [3].

Kerzner in Osagie [4] states that partnership is the condition of a group of two or more individuals or companies working together to achieve a common objective. Petersen [5] defines partnership as, formally, an agreement where two or more people or groups work together toward mutual goals. The theoretical foundation in support of the program of the partnership is the social interdependence theory. According to Johnson and Johnson [6], there are two types of social interdependence: positive and negative. Positive inter-

dependence exists when there is a positive correlation among individuals' goal attainments; individuals perceive that they can attain their goals if and only if the other individuals with whom they are cooperatively linked attain their goals. Positive interdependence results in promotive interaction. Negative interdependence exists when there is a negative correlation among individuals' goal achievements; individuals perceive that they can obtain their goals if and only if the other individuals with whom they are competitively linked fail to obtain their goals. Negative interdependence results in oppositional or contrient interaction [6].

Positive interdependence is posited to result in promotive interaction. Promotive interaction occurs as individuals encourage and facilitate each other's efforts to accomplish the group's goals. Promotive interaction is characterized by individuals (1) acting in trusting and trustworthy ways; (2) exchanging needed resources, such as, information and materials, and processing information more efficiently and effectively; (3) providing group mates with efficient and effective help and assistance; (4) being motivated to strive for mutual benefit; (5) advocating exerting effort to achieve mutual goals; (6) having a moderate level of arousal, characterized by low anxiety and stress; (7) influencing each other's efforts to achieve the group's goals; (8) providing group mates with feedback in order to improve their subsequent performance of assigned tasks and responsibilities; (9) challenging each other's reasoning and conclusions in order to promote higher quality decision making and greater creativity; and (10) taking the perspectives of others more accurately and thus being better able to explore different points of view.

The program of the partnership between vocational school teachers and industrial community was initiated in 2011 and, in the course of its implementation, the AMOVIE (Achievement Motivation Training, On-the-Job Training, Visual Exhibition, and Evaluation) model was applied in 2015. It was hoped that, through the AMOVIE model, the implementation of the partnership program of vocational school teachers and industrial community would become increasingly more effective. From a review of relevant research results, it is known that AMT (achievement motivation training) has an important role in arousing

the motivation for high achievement. A study by Khomsatun [7] finds that AMT and peer teaching as workshop actions are effective in improving the competence in learning management and the motivation for high achievement of the teachers. It is also found in similar research results that achievement motivation of employees is related significantly to their job performance [8].

In the partnership program of vocational school teachers and industrial community, on-the-job training was chosen as the pattern to use. According to Alipour [9], the results of a study show that on-the-job training strongly affects trainees to more creativity, achieving organizational objectives, and improved work quality. Training is a substantial organizational investment getting a satisfactory return on investment means linking the training function and activities to the company's overall business activity. The investment in people, both in developing and maintaining the appropriate skills, is vital part of the organization's strategy for the future. Like any investment, investment in training should produce an effective and measurable payback. Effective training enhances the knowledge, skills, attitudes, and behaviors of people and hence their performance. The improved performance of individuals leads directly to profit. Such a payback could be rapid and significant, yet it is rarely measured or presented in financial terms.

The partnership program was conducted through on-the-job training. There are three approaches to training, according to Rama and Bowen [10], namely, the traditional approach; the experiential approach; and the performance-based approach. In the traditional approach, the training staff designs the objectives, contents, teaching techniques, assignments, lesson plans, motivation, tests, and evaluation. In the experiential approach, the trainer incorporates experiences where the learner becomes active and influences the training process. In this model, the objectives and other elements of training are jointly determined by the trainers and trainees. Trainers primarily serve as facilitators, catalysts, or resource persons. In the performance-based approach to training, goal achievement is measured through attainment of a given level of proficiency instead of passing grades of the trainees. Emphasis is given to acquiring specific observable skills for a task. It is more suitable

for vocational school teachers of the service field of expertise to use the approach employed in the performance-based teacher education (PBTE). In the PBTE model of training, there is a demand for teachers to always show quantity and quality in their work in accordance with determined work standards. It is more suitable for vocational school teachers of the technology field of expertise to use the experiential approach. With the use of such an approach, the creative teacher has a chance to make simulation media for certain work if the school still lacks such facilities as media for simulating some airplane machinery or a machine for CNC (*Computer Numerical Control*), *developing a PLC (programmable logic controller)*, and others.

The term used to refer to the training for teachers who are already regular employees at certain schools is in-service training or upgrading. In-service training is a process of staff development for the purpose of improving the performance of an incumbent holding a position with assigned job responsibilities [11]. In-service training could be categorized into five types, namely, (1) induction or orientation training, (2) foundation training, (3) on-the-job training, (4) refresher or maintenance training, and (5) career development training. It is more suitable for the program of the partnership between vocational school teachers and industrial community to use two of the training types, namely, on-the-job training and refresher or maintenance training. On-the-job training is ad hoc or regularly scheduled training, such as, fortnightly-run training under the training and visit (T&V) system of extension, and is provided by the superior officer or the subject-matter specialists for the subordinate field staff. Maintenance or refresher training is offered to update and maintain the specialized subject-matter knowledge of the incumbents. Maintenance or refresher training usually deals with new information and new methods, as well as review of older materials [12]. Such training models could be used in the work place without having to weave a partnership with other parties. Learman in Cantor [13] estimates significant increase in both short-term and long-term earning gains as well as overall social benefits from training through apprenticeship. The lifetime return of this investment is estimated as more than double the return of just a community-college two-year education.

Results of such a partnership had better be reported in writing and exhibited. The exhibition is necessary because it is more attractive, more informative, dan more actually visible in terms of results than a written report. The results of a program that are reported in writing and its success could only be known by the evaluator or rater who reads the report while the results of a program that are visually exhibited could be known and its success could be evaluated by many people. Situma (2012) [14] explains that exhibitions provide a forum for companies to display and demonstrate their products to potential buyers who have a special interest in buying those products. Exhibitions provide a natural and nearly perfect platform for the delivery of solutions to the buyers. Exhibitions could become an arena of promotion for teachers who are, according to Mulyatiningsih [15], teachers-preneurs in selling their expertise.

The objective of the research concerned here was to know the effectiveness of the AMOVIE model in the implementation of the program of the partnership between vocational school teachers and industrial community. The effectiveness was measured through the participants' performance during their OJT, the implementation of in-house training (IHT) to put to use at school the results of the OJT, and the final results of the implementation of the partnership program of vocational school teachers and industrial community. The program was to be declared effective when the results of the partnership program using the AMOVIE model were higher in score than those prior to using the AMOVIE model.

**Research Method**

The research activity was conducted in collaboration with the Directorate of HRD of 'Secondary or Middle Education'. The researcher was one of the designers and facilitators of the program of the partnership between vocational school teachers and industrial community held by Sub Directorate of HRD of vocational education from 2011 to 2015. Each time the partnership program was held, it took one year only so that in each following year different program participants were recruited in order that the holding of the program would be more evenly distributed to the vocational schools all over Indonesia.

The research used the quasi-experimental approach with the two-group posttest only design according to Neuman [16]. The experimental design could be described as follows:

R	AMOVIE	O1, O2, O3	2015
R	REGULAR	O1, O2, O3	2014

where

R = random assignment

O = evaluation of program result

The population (or N) of the research consisted of the participants of the program of partnership between vocational school teachers and industrial community in 2014 and 2015. The sample (or n) was taken by means of simple random sampling. The sampling frame is presented in Table 1.

*Table 1. Sampling Frame*

Year	N	n	Group
2015	120	90	Treatment
2014	116	90	Control
Total	236	180	

According to Krejcie and Morgan [17], if the population consists of 120 individuals, then, at the level of significance of 5%, a sample of 92 individuals are required. If the combined population of two groups is 236 in size, then it is sufficient to take a sample of  $146/2 = 73$  in size per group. With the sampling size theory according to Krejcie and Morgan as basis, the sample taken was already adequate in size and the simple random sampling technique used already resulted in the sample representing the population in characteristics.

The participants of the partnership program were vocational school teachers of 7 programme, namely, (1) Technology and Engineering; (2) Information and Communication Technology; (3) Agribusiness and Agrotechnology; (4) Maritime Science; (5) Business and Management. (6) Tourism and Health and Social Work, distributed into 13 provinces in Indonesia. The data were collected by using observation at the time of (1) monitoring the teachers' performance during the holding of their industrial OJT (on-the-job training); (2) the in-house training at school utilizing the OJT results;

Table 2. Technique of Data Collection

No.	Substance Evaluated	Observer	Rating Scale
1	Performance During OJT in industry	Mentor from industry	5-10
2	Post-OJT Performance at school	School Principal	0-1
3	Final Report and Visual Exhibition	Facilitator Team	5-10

and (3) the visual exhibition after completing the running of the partnership program. The manner of data collection is briefly explained in Table 2.

The performance of the teachers participating in the partnership program during their OJT was observed and evaluated by mentors from industry. The score range was from 1 representing the category of being very poor through to 5 representing the category of being very good. The observation sheet was delivered to each observer by e-mail and collected at the time of monitoring the OJT activity. The grid for the performance evaluation instrument during the OJT is presented in Table 3. *Table 3. Grid of the Participants' Performance Observation Sheet During the OJT*

Work Motivation	1, 6	2
Discipline	3, 4	2
Responsibility	2	1
Cooperation	5	1
Initiative	7	1
Competence	8, 9, 10	3
<b>Total</b>		<b>10</b>

After their OJT, the participants conducted in-house training at school by making use of the results of their OJT. These teachers' performance after returning to their respective schools was observed and evaluated by the principal. The observation sheet used the Guttman scale with items to be answered with either YES or NO. The grid for the instrument used to evaluate the performance of the teachers participating in the program after their OJT is presented in Table 4.

Table 4. Grid of the Participants' Post-OJT Performance Observation Sheet

Substance Evaluated	Item No.	Total
Follow-Up of OJT Results	1, 2, 10	3
Learning Quality Development	3, 4, 5, 9	4
Work Ethos Improvement	6, 7, 8	3
<b>Total</b>		<b>10</b>

The effectiveness of the AMOVIE model was measured based on the degree of goal attainment observed at the time of the visual exhibition. The evaluation of the degree of goal attainment was done by the program facilitators. There were four components evaluated, namely, the report of the program results, the poster media, the presentation, and the product/the outcome. The grid for the visual exhibition evaluation instrument is pre-sented in Table 5.

Table 5. Grid of the Visual Exhibition Evaluation Instrument

Substance Evaluated	Item No.	Total
REPORT		
Material Newness	1, 2	2
OJT Duration	3	1
Goal Attainment	4, 5, 6, 7	4
Administrative Requirements	8, 9, 10	3
POSTER	11, 12, 13	3
PRESENTATION	14, 15, 16	3
PRODUCT	17-20	4
<b>Total</b>		<b>20</b>

The indicators of the goal attainment of the program were measured from the quantity and quality of the product/the outcome exhibited. The outcome types considerably displayed included new learning modules/jobsheets/materials from industry, learning media, sellable innovative works, and expertise-supporting innovative works.



The data collected were analyzed descriptively quantitatively. The effectiveness of the AMOVIE model in the execution of the partnership program was known from the difference in mean score for program results between the treatment (or experimental) group and the control group. The testing of difference used the independent sample t-test.

## Results and Discussion

### a. AMOVIE Model

In 2015, the program of the partnership between vocational school teachers and industrial community was conducted by using what was named AMOVIE, with the name being (as aforesaid) the abbreviation of Achievement Motivation Training (AMT), On-the-Job Training (OJT), Visual Exhibition, and Evaluation [15]. AMOVIE was a model for guiding the execution of the partnership program of vocational school teachers and industrial community. The steps in AMOVIE are illustrated in Figure 2.

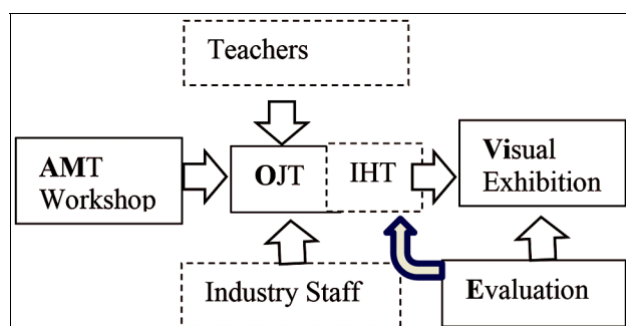


Figure 1. AMOVIE Model

The steps in using the AMOVIE model were as follows.

1. Before conducting the partnership program with industry, the vocational school teachers participating in the program were given preparation in workshop and AMT (achievement motivation training) activities. The purpose of the activities was to motivate them to have dreams of high achievements and to be willing to produce innovative works for learning and develop business in education having the potential of additional income. AMT is considerably used in government institutions to improve employees' motivation. McClelland in Smith [18] demonstrated that achievement

motivation training programs were successful with businessmen across the world. At this time AMT was introduced to the public school setting, demonstrating gains made by students in academic subjects, achievement thinking, internal control, and goal setting ability. AMT programs have been successful when individuals incorporate thoughts and achievement strategies of high achieving individuals.

### 2. On-the-Job Training

The implementation of the partnership used the pattern of on-the-job training (OJT) in industry and in-house training (IHT) at schools. During the execution of the OJT/IHT, the facilitator team monitored and evaluated the activities. With the use of the OJT model, the teachers could join apprenticeship programs in industry at the times they did not have any teaching activities at school. Jagero, Mlingi, and Komba [19] state that training is therefore necessary to enhance the knowledge, skills, and attitude of employees. It would also make it easier for employees to acquire further knowledge based on the foundation gained from the training and further effect changes in other co-workers. It was found that those employees who have taken trainings were more capable in performing different tasks and vice versa.

### 3. Visual/Virtual Exhibition

Results of the partnership between vocational school teachers and industrial community were reported, presented in forums, and displayed. To give participants motivation to attain achievement, the exhibition of OJT results was designed as a competitive event with the best participants to be selected from among the group representing each programme of expertise. The substance evaluated in the visual exhibition included the report of activities, the presentation, the posters, and the product display. Mehzoud *et al.* [20] suggest that a research exhibition could communicate the research through predominantly non-verbal means, ranging from maps and diagrams, illustrations and photographs, to slides and films. An exhibition could be employed to help communicate the research through thematic ordering, juxtaposition, and platform recognition.

Table 6. Activities Done by Vocational Schools in the Partnership with Industry

Partnership Activity	% (n=180)
Effective Management of teaching industry	18.3
Laboratory/Workshop Resource Sharing	51.7
Exchange of Experts	16.7
Holding Education and Training Sessions Collaboratively	56.7
Curriculum Design	48.3
Dissemination of New Technology	46.7
Recruitment of Workforce	81.7
Providing Places for Students' apprenticecip	98.3
Providing Places for Teachers' On the job training	51.7

4. Evaluation

The evaluation was conducted at the time of the OJT, of the IHT putting to use at school the results of the OJT, and of the visual exhibition of the program results. The results of the evaluation were to be used for quality improvement in the execution of partnership programs at times to come.

**b. Partnership Activities of vocational school teachers and industrial community**

One of the requirements for effective vocational education, according to Prosser and Quigley [3], is that the training environment is the work-ing environment itself or a replica of the working environment. To fulfill the requirement, it was suggested that vocational education have a partner from industrial community. The types of activities in the partnership with industrial community done

by the 180 schools that were the research respondents could be known from Table 6.

The data in Table 6 indicate that the most frequent activities done in the partnership with industry were the provision of the place for the industrial work practice of students as apprentices and the recruitment of workforce from industry. The partnership activities that were the least frequently done were the exchange of experts and the effective management of teaching industry.

**c. Teachers' Performance During OJT**

The effectiveness of the AMOVIE model in the execution of the vocational school teachers and industrial community programme was mea-sured from the difference in performance during OJT between the treatment group (whose mem-bers were the program participants in 2015), who

Table 7. OJT Performance Mean Score

No.	Substance Evaluated	'14	'15
1.	Participating in activities with sincerity	9,5	9,6
2.	Completing tasks with full responsibility	9.2	9.4
3.	Obeying the rules of conduct/the work procedures in effect	9.3	9.3
4.	Keeping promises and keeping to the time already agreed on	8.8	8.9
5.	Able to collaborate with both fellow OJT participants and industry employees	9.2	9.4
6.	Learning new knowledge or skills with full spirit/enthusiasm	8.9	8.8
7.	Possessing considerable initiative to make use of learning opportunities	8.4	8.7
8.	Deft/Skillful in working/training	9.0	9.1
9.	Able to work according to the correct procedure	9.1	9.1
10.	Results of work meeting industry quality standards	8.9	9.1
	<b>Total Mean</b>	<b>9.0</b>	<b>9.2</b>

Table 8. Difference in OJT Performance

Variable Measured	t	df	sig.
Performance During OJT	-1.092	178	.276
	-1.092	176.022	.276

Table 9. Teachers' Post-OJT Performance at School

No.	Substance Evaluated	2014	2015
1.	Giving other teachers information of the OJT results	90.0	97.8
2.	Applying the new IPTEK from DUDI	82.2	100.0
3.	Improving the quality of the learning process	87.8	100.0
4.	Constructing new teaching materials matching materials learned in DUDI	88.9	96.7
5.	Developing innovative learning media	90.0	98.9
6.	Teaching and working with spirit	91.1	100.0
7.	Improving the curriculum and syllabus	90.0	90.0
8.	Completing learning devices	84.4	98.9
9.	Developing production/service units	56.7	63.3
10.	Holding IHT workshops	83.3	88.9

already used the AMOVIE model, and the control group (whose members were the program participants in 2014), who did not use the AMOVIE model yet. The evaluation used 10 performance observation items with a score range from 5 to 10. The mean scores for the participants' performance during their OJT are presented in Table 7.

The respective mean scores of the treatment group and the control group were nearly the same. It was caused by the participants' high commitment in OJT implementation. The lowest mean score was of the control group for the item of "possessing considerable initiative to make use of learning opportunities", namely, 8.4. A mean score >8 is categorized as good. On-the-job training programs really positively influence employee performance. It is recommended that governments should invest more in practical education through Vocational Educational Training Authority schools (VETA) [19]. The hypothesis that there was difference in performance between the treatment group and the control group during their OJT was tested by using the independent sample t-test. Results of the t-test analysis are presented in Table 8.

Results of the t-test analysis indicated that sig. ( $\alpha$ ) was .276 > .05 so that it could be concluded that there was no difference in performance during

OJT between the treatment group and the control group. The two compared groups alike showed good performance (with scores >8).

#### d. Teachers' Post-OJT Performance

After completing their OJT in industry, the teachers participating in the program underwent in-house training (IHT) and put to use their OJT results for improvement in the performance of the learning. The teachers' performance after returning to VOCATIONAL SCHOOL was observed and evaluated by the principal.

There were 10 points to be observed and responded to by filling in the option YES (scored 1) when the behavior to observe appeared or the option NO (scored 0) when the behavior to observe did not appear. The results of the analysis of data concerning the teachers' post-OJT performance in percentage (%) of n=90 per group are reported in Table 9.

The data in Table 9 indicate that the treatment group was higher in performance mean score than the control group. The lowest frequency of occurrence in score was for the item of "developing production/service units". Their reasons for not entering the production/service units were that they already had considerable teaching loads, the time that they had for such units was limited, and there

were already specific staff whose job was managing the production units. Results of the hypothesis testing concerning the difference in post-OJT performance are presented in Table 10.

Table 10. Difference in Post-OJT Performance

Variable Measured	t	df	sig.
Post-OJT Performance	-6.700	178	.000
	-6.700	157.672	.000

The results of data analysis in Table 10 indicate that sig ( $\alpha$ ) was  $.00 < .05$  so that it could be concluded that there was difference in teachers' post-OJT performance between the treatment group, who used the AMOVIE model, and the control group, who did not use the AMOVIE model. Van der Klink [21] states that past studies indicated that

the OJT programs were only partially successful in realising training goals and that self-efficacy, prior experience with tasks, and managerial support and workload were the most powerful predictors for training effectiveness and concludes that the evidence suggests that OJT is not entirely an effective training method although more research is needed in this area. In the research concerned here, the partnership program through OJT was initiated with AMT so that there was a chance for improvement in self-efficacy, which indirectly exerted influence on the post-OJT performance.

**e. Teachers' Performance During OJT**

One of the indicators of the effectiveness of a program is the attainment of any goal of the program itself. The evaluation of the degree of the

Table 11. Mean Scores for Program Results

Substance Evaluated	2014	2015
The selection of activity materials meets the need.	7.7	8.1
The OJT materials are new materials for teacher.	7.4	7.9
The targeted 100-hour execution of the OJT schedule is achieved.	7.6	8.1
IHT reaches a sufficiently wide target audience.	7.3	7.7
The results are consistent with the plans of the activities.	7.4	7.9
The results have the potential for improving learning quality.	7.6	8.2
The OJT results are developed for entrepreneurship.	7.2	7.8
The contents of the report are systematically arranged according to the guidance.	7.6	8.0
The writing system is prim.	7.3	7.9
The attachment of activities is complete.	7.6	8.1
<b>POSTER</b>		
The poster contents could represent all activities.	7.0	7.6
The poster is creative in displaying attractive pictures	7.0	7.5
The contents of the messages are clear and easily understood.	6.9	7.5
<b>PRESENTATION</b>		
The media of presentation are creative and attractive	7.4	7.8
The performance at presentation time interests the audience.	7.4	7.7
The time for presentation is used according to schedule.	7.5	7.7
<b>PRODUCT</b>		
Modules/jobsheets/materials for learning	6.6	6.9
Instructional media	6.3	6.8
sellable innovative works	5.7	7.1
expertise -supporting innovative works	5.6	6.8
Total Mean	7.1	7.7

program goal attainment was conducted at the time of the visual exhibition. There were 4 components evaluated, namely, the quality of the activity report, the posters, the presentation, and the product. The evaluation used the rating scale ranging from 5 to 10. The mean scores resulting from the visual exhibition are presented in Table 11.

Results of data analysis in Table 11 indicate that there was difference in mean score between the program results before using the AMOVIE model and those after using the AMOVIE model. The difference that was sufficiently striking was in the case of product as component of the substance evaluated, and particularly in the case of the items concerning the production of sellable innovative works and expertise-supporting innovative works, with respective mean score differences of 1.4 dan 1.2. The hypothesis testing concerning difference in visual exhibition results between the treatment group and the control group is reported in Table 12 as follows.

Table 12. Difference in Program Results

	t	df	sig.
Exhibition total	-5.996	178	.000
	-5.996	177.981	.000
Report	-5.068	178	.000
	-5.068	171.081	.000
Poster	-3.075	178	.002
	-3.075	177.980	.002
Presentation	-2.332	178	.021
	-2.332	177.306	.021
Product	-5.745	178	.000
	-5.745	177.598	.000

The results of data analysis in Table 12 show that all the components measured at the time of the visual exhibition demonstrate a significant difference (sig.<.05). It indicates that the AMOVIE model was more effective in the attainment of the program goal. An example of a visual exhibition document of one of the program participants from the field of expertise of Pharmacy is seen in Figure 2.



Figure 2. Documentation of a Visual Exhibition in the Partnership Program of vocational school teachers and industrial community

After using AMOVIE, the vocational school teachers felt challenged to show their best results. The products exhibited were, among others, (1) laboratory/workshop practice equipment; (2) electronic instructional media; (3) lesson modules/lesson books; and (4) products from the teaching industry of the school. The visual exhibition activity at the end of the program execution was in line with the results of certain research by Dumitrescutt *et al.* [22] though the activity done was different. They state that the crossover between virtual and physical interactions in smart virtual exhibitions seems particularly attractive because it puts the focus on the physical heritage and, at the same time, on digital capabilities specifically created to fit the personalized user vision and experience. There are presented concrete examples of virtual exhibitions, which put the theory into practice, by combining exhibition design with digital objects, from multimedia content to virtual objects, using a curatorial narrative in order to offer experience and immersion to visitors.

Motivation has an important role in the attainment of goals in both learning and working. To get high achievement at work, it is necessary to make efforts to attain predetermined goals. To improve the motivation to get high achievement, the partnership program of vocational school teachers and industrial community was initiated with AMT. It is in line with the finding by Kolodziej [23] expressed in the statement that the correlation between academic achievement and motivation shows that the need for achievement is a valid factor of students' commitment and positively correlates with



academic performance. Alipour [9] has made use of motivation before, during, and after a training process. Motivational planning and management indicate the recognition of the ways that a trainee can be motivated to learn the system, and to have a high motivation to continue to learn the system after training. The objectives of a motivational planning approach include developing the confidence of success, managing reinforcement, connecting the instruction to important needs and motives, and arousing and maintaining curiosity and attention. Trainees are asked to bring their problems to work on during training. These approaches may be integrated. For example, application training could be utilized early in training to demonstrate the usefulness of the software for solving trainees' problems.

### Conclusion

The AMOVIE model in the implementation of the partnership program of vocational school teachers and industrial community was to be declared effective on the basis of two conditions, namely, (1) the goals of the program were attained; (2) the mean score of the treatment group using the AMOVIE model was better than that of the control group not using the AMOVIE model.

After the data were analyzed, it could be concluded that the AMOVIE model proves to be effective when used in the implementation of the program of partnership between vocational school teachers and industrial community because (a) the mean score for performance during OJT of the treatment group (which is 9.2) has been slightly better than that of the control group (which is 9.0) though the analysis of the independent sample t-test results in  $t_{obtained} = 1.092$  with  $sig. = 0.276$ , indicating that there is no difference in performance during OJT between the treatment group and the control group; (b) there is difference in post-OJT performance between the treatment group and the control group as indicated by  $t_{obtained} = -6.7$  with  $sig. = 0.00$ ; and (c) the mean score for the program results of the treatment group (which is 7.7) is better than that of the control group (which is 7.1) and the analysis of the independent sample t-test results in  $t_{obtained} = 5.996$  with  $sig. = 0.00$ , indicating that there is difference in program results between the treatment group and the control group.

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