Improving the Performance of Entrepreneurship Teachers in Implementing the Model of Factory Teaching

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Abstract

This study aims to improve the performance of entrepreneurship teachers through the implementation factory teaching model at Vocational High School, SMKN 1 Blitar. It used action research approach through two cycles. Results of the two cycles indicates that there is an increase in test scores achieve by students. The finding confirms that the factory teaching was able to support and improve learning process and performance of the entrepreneurship teachers.

Keywords

entrepreneurship teachers' performance; teaching factory

INTRODUCTION

Entrepreneurship learning at Vocational High School, SMKN 1 Blitar has become an important need, remember the limited employment available in Indonesia in accommodating SMK graduates. It also there is lack of ability of Indonesian producers in reducing production costs to compete with products from other countries. So that Indonesia has only a few industries that are engaged in equipment (capital good) most of the manufacturing industry relies on imported equipment and machinery as a whole. On the other hand, Indonesia's human resources are still inadequate in optimizing information and communication technology to improve the efficiency of the production process and product marketing.

The National Education system should be able to ensure equal distribution of educational opportunities, quality improvement and relevance and efficiency of education management to face challenges in line with the changing demands of local, national and global life. So, it is necessary to do the renewal of education in a planned, directed and sustainable (Departemen Pendidikan Nasional, 2006). In line with the National Education System, the priority of the Republic of Indonesia President in the field of Education 2010-2014 mandates to improve access of quality education, affordable, relevant and efficient towards the upraised of people's welfare, independence, noble character and strong national character. The development of the education sector is directed towards achieving economic growth that is supported by the alignment between the availability of educated personnel with the ability to: (1) create employment or entrepreneurship, and (2) respond to the challenges of labor needs.

Directorate of Vocational High School (SMK) further sharpens the development of entrepreneurship learning program in SMK. Entrepreneurship learning in SMK as much as possible is directed as a learning media for SMK students to be able to identify the market, production, product differentiation by adapting and modifying in accordance with developing technology, then able to do marketing.

SMK entrepreneurship learning is implemented in various forms of business-based learning media such as Teaching Factory, Teaching Industry, Hotel Training, Incubator Unit, and Business Center at school. Business-based learning media is designed in order to improve the quality of learning through learning mode while doing (learning by doing). Learning with this approach will foster the spirit of entrepreneurship for students. Entrepreneurship is no longer a taboo word for the people of Indonesia, especially the education community. Although it is still found there are concerns related to entrepreneurial practice. Entrepreneurship is a form of the word that can build our awareness, that the application of entrepreneurship will bring a positive impact for every human being in Indonesia, which ultimately bring prosperity for the nation of Indonesia.

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After it is identified, there are several factors causing the emergence of learning problems so that teachers are still too many lectures, such as (1) teachers happy in activities that are routine; (2) lack of use the media properly; (3) Learning strategy is less varied; (4) lack of experience in conducting PTK; (5) teachers' knowledge of learning techniques is less; (6) they have not understood various strategies, methods, and techniques of learning; (7) they have not used interactive media; (8) lack of mastering technology (IT); (9) still rely on textbooks; (10) learners are considered to have the same ability; (11) The RPP is for administrative purposes only; and there are other factors. If this cause is not resolved soon, it will result in the low quality of learning that can ultimately reduce the learning outcomes of learners.

METHODS

This study used action research at the school action research involving four stages of activity: planning action, action, observation, and evaluation of action process (observation and evaluation) and reflection. In detail, the procedure of action taken are: (1) establish the head of the group of entrepreneurship teachers; (2) provide an explanation of the use of cooperation between entrepreneurship teachers as learning resources; (3) teachers develop learning scenarios by utilizing cooperation among entrepreneurship teachers as learning resources in group discussions; (4) to guide entrepreneurship teacher groups in developing learning scenarios; (5) the teacher group leader presents the learning scenario; (6) provide feedback on learning scenarios that teachers' groups have created; (7) the teacher carries out a learning scenario in the actual learning process; (8) evaluate the ability of teachers to implement learning scenarios; (9) in the discussion group teachers share experiences related to the implementation of learning that utilizes cooperation among teachers in the same field of study as a source of learning; (10) expected targets: teachers are able to create learning scenarios by utilizing cooperation between entrepreneurship teachers and productive teachers as learning resources, teachers are able to implement learning by utilizing cooperation between entrepreneurship teachers and productive teachers as learning resources and teachers able to discuss actively and creatively, and able to utilize teacher group work discussions effectively and efficiently in solving problems related to learning activities.

The subjects of the study are all entrepreneurship teachers in SMKN 1 Blitar, 6 people, the location of the research took place at SMKN 1 Blitar 30 Kenari Street Blitar, while the research time is the time period needed when this research is conducted in September until November 2014. Forms of action in this research in the form of supervision (guidance group) to entrepreneurship teachers, is in order to be able developing learning scenarios and implementation of learning by utilizing the school environment as a source of learning effectively. In detail the form of action in this study is to convey information about the use of school environment as a source of learning, guiding teachers to develop learning scenarios related to the use of cooperation between entrepreneurship teachers and productive teachers as learning resources.

The process of action research in cycle 1 included: research planning, namely: (1) meeting with entrepreneurship teachers, informing about research implementation, (2) preparing group discussion scenario to be implemented during process of action, (3) preparing research instrument (observation sheet, teachers' performance assessment sheet). Implementation stage was conducted in several steps: (1) the first meeting is to give general direction of cooperation use between entrepreneurship teachers as a source of learning, (2) the second meeting is the teachers implementing learning by using cooperation between entrepreneurship teachers as a learning resource according to the learning scenario they have, make an assessment on the teachers related to the implementation of learning according to the scenarios made, (3) the third meeting is the entrepreneurship group of teachers to discuss the constraints of implementing learning by utilizing the cooperation between entrepreneurship teachers as learning resources. Counseling in groups, related to teacher-applied learning and revising learning scenarios. So, it produced learning scenarios in referring with the standard process.

The evaluation stage is done at the end of the action which aims to determine the level of ability of teachers in utilizing cooperation between entrepreneurship teachers as learning resources. Implementation of the evaluation is done by using the learning scenario assessment sheets and the assessment sheets of the implementation of the lesson in the assessment aspect (1) the learning scenario contains at least the standard of competence, basic competencies, indicators, subject matter, tools / media, learning resources and assessment; (2) the suitability between the subject matter and the media and the learning strategy; (3) links between subject matter and selection of learning resources; (4) conformity between learning objectives with material resources and assessment. Reflection stage is based on observation results during the activity and

evaluation results at the end of the cycle meeting are done reflection. The results of this reflection serve as a reference for planning the completion and improvement of the next cycle.

Cycle II: The planning phase of the research is planned for supervision by using group discussion technique, about the use of cooperation between teacher entrepreneurship and productive teachers as a learning resource and productive field teachers in SMK N1 Blitar that has not achieved optimal results in cycle I. Based on the observation and cycle I reflection, improvement of the strategy and improvement of guidance implementation in cycle II. Implementation phase of research in principle, the implementation steps of action on cycle I are repeated in cycle II by modifying and improvements based on the results of reflection in cycle I. Activities in cycle II consists of 2 (two) meetings by following the steps are: meeting I through working groups, teachers discuss the problems or barriers to utilizing cooperation between entrepreneurship teachers and productive teachers as a source of learning, in preparing the learning scenarios which then finding the solution. This activity is assisted by teachers who are considered capable enough in that case, the teacher presents and simulates the results of group discussion; the teacher revises and improves the learning scenario by optimizing the utilization of cooperation between entrepreneurship teachers as learning resources. The second meeting of teachers conducts classroom teaching activities using revised learning scenarios, the teachers discuss and refines the complete learning scenario with the use of cooperation among the entrepreneurship teachers as learning resources, and the teacher notes the lack of learning that needs to be improved and refined.

Observation and Evaluation are done when the teacher discusses the problem or barriers and solving it in group activities either individually or in groups. Observation on teachers' attitude aspect is done by using the same observation format with observation format used in cycle I. Evaluation done at the end of meeting of cycle II, using the same assessment format with assessment format used in cycle I. The aspect is assessed, and the way of assessing is also the same as the assessment in cycle I. Reflection is based on the results of observations during the activity and evaluation results at the end of the meeting cycle II then proceed with reflection on the activities and results of activities that have been done.

RESULTS

Cycle I

Based on early observations at SMK Negeri 1 Blitar, all entrepreneurship teachers rarely and even never used cooperation between entrepreneurship teachers with productive teachers as learning resources, this was due to lack of understanding and performance of teachers to utilize cooperation among teachers of study field as a source of learning. During this time the teachers were more using books and tools that were owned by the school as a source of learning to complement learning activities in the classroom. Similarly, outside of classroom learning activities was very rare and never even conducted on the reason of insufficient time, student safety, and security issues. These were of course less appropriate with the learning that used active, creative, effective and fun learning approach which should be implemented in the application of educational unit curriculum (KTSP) and learning with teaching factory implementation. Activity in cycle I was started with discussion activity about problems faced in the utilization of cooperation between entrepreneurship teachers as learning resources, followed by information about the benefits of cooperation among entrepreneurship teachers as learning resources for students and their implementation in teaching and learning process. When teachers discussed in cycle I, observed the attitude of teachers in discussions as seen in Table 1.

Assessment of learning scenario in the form of learning implementation planning program (RPP) which compiled by teachers in cycle I can be seen in Table 2. While assessment of the implementation of the use of cooperation among entrepreneurship teachers as a learning resource in classroom learning activities in the cycle I obtained the following results in Table 3.

Tabel 1. Observation Results Data

		Total				
	Cooperation		Attention	Presentation	Total Score	Category
	(1 – 10)	(1-40)	(1-20)	(1 - 30)	Score	
Amount	46	180	93	156	475	
Average	7.67	30,00	15,50	26,00	79,17	C

Tabel 2. Data on Learning Scenario Assessment Results

		Rated	aspect		Total	Amount of	Category	
	1	2	3	4	score	value		
Amount	25	24	21	24	94	470		
Average	4,17	4,00	3,50	4,00	15,67	78,33	C	

Tabel 3. Data on Learning Implementation Assessment Results

	Rated aspect						Total	Amount of	Cata	
	1	2	3	4	5	6	score	value	Category	
Amount	24	21	25	23	22	23	138	460,00		
Average	4,00	3,50	4,17	3,83	3,67	3,83	23,00	76,67	C	

Tabel 4. Data on Teachers Performance Assessment Result

	Total score						
Score	50	52	51	51	51	52	307
Score	71,43	74,29	72,86	72,86	72,86	74,29	73,10
Category	Enough	Enough	Enough	Enough	Enough	Enough	Enough

Assessment of the performance of entrepreneurship teachers as a learning resource in the learning activities in the classroom in the cycle I obtained results in Table 4. Research data of school activities that were obtained from the result of teacher attitude observation in teacher workgroup discussion about utilization of cooperation between entrepreneurship teacher as the source of learning in cycle I, the result was "enough" category with average value 79,17. It indicated that the teachers in the discussion had not shown the cooperation, activity and good attention to the problem of the utilization of cooperation between entrepreneurship teachers as a source of learning, so, more intensive guidance was needed. For the assessment of learning scenarios and assessment of the implementation of learning, still needed a better improvement, for the learning scenario was still in the category of "enough" with an average value of 78.33. The implementation assessment of the cooperation used between entrepreneurship teachers as a learning resource in classroom learning activities resulted in the category "enough" with an average value of 78.33. This showed that teachers in implementing the use of cooperation between entrepreneurship teachers as learning resources through learning activities in the classroom had not been optimal, so it needed to be increased.

With the result of observation and assessment on the activity of cycle I then did reflection. From the reflection on all activities in cycle I, it was found some barriers that the ability of teachers result was not optimal in utilizing cooperation among teachers in the field of study of entrepreneurship teachers and productive teachers as a source of learning. The barriers are: teachers had not fully understood the benefits of cooperation among teachers in the field of study of entrepreneurship teachers and productive teachers as a source of learning, and teachers in choosing learning resources and chose learning strategies by utilizing cooperation between entrepreneurship teachers and productive teachers were not in accordance with the expectation. This was seen in teacher learning scenarios in the source type of learning first aspect of the school environment was not listed, whereas the subject matter had in accordance with the cooperation between entrepreneurship teachers and productive teachers; the second aspects of the suitability between the subject matter, the media, and the lesson strategy were lacking; the fourth aspects of appropriateness between the learning objectives and the source of the material were more just list the books as the only source of learning.

From the result of reflection on the implementation of learning in the classroom, the barriers found were: aspect (1) in the early activity, the teachers did not provide information on learning objectives and the time was not yet in accordance with the planning; aspects (2) core activities, learning steps were still dominated by teachers with lecture methods so that was less appropriate with active, creative, effective and fun learning (grip); aspects (3) teachers' ability to link learning materials with cooperation between entrepreneurship teachers and productive teachers was not optimal; (4) Closing lessons, teachers were less

emphasis on cooperation between entrepreneurship teachers and productive teachers. These barriers would be refined in cycle II activities.

Cycle II

In cycle II, the activities done were to discuss the barriers that were experienced in arranging learning scenarios and implementation of classroom learning in cycle I through teacher discussion activities in the field of study. In the arrangement of learning scenarios especially on aspects 1, 2 and 4 teachers did revisions, guided by teachers who had been able, with supervisory guidance. In the implementation of classroom learning, related to barriers on aspects 1 of the early activity, aspects 2 core activities, aspects 3 of teachers' ability to link the subject matter with cooperation among the field of study teachers, and aspects 6 lessons finale. So, the teacher discussed the barriers that are guided by supervisors. Before the implementation of learning in the classroom, firstly was done simulation or modeling by using members of the teacher group as a student.

As activities in cycle I, activities in the cycle II were observed, evaluated and assessed. The result of observation on teacher attitude in the discussion on cycle II present in Table 5. The results of the assessment of learning scenarios in the form of learning implementation plan (RPP) presented in Table 6. The results of learning implementation assessment presented in Table 7. The assessment result of teachers performance present in Table 8. Data obtained from teacher attitude observation in cycle II, after analyzed; there was an improvement toward "Good" category improvement, with the average value of 85. For assessment of learning scenario and assessment of learning implementation, each learning assessment also had improvement toward the better: for the learning scenario was in the "Good" category with an average value of 82.5, and for the assessment of the implementation of learning in the class is in the "good" category with an average value of 82.78. By looking at the results in cycle II, the reflection on the results obtained in cycle II was the improvement of teachers' performance utilizing the school environment as a source of learning. This was evidenced by the average value obtained in programming learning and in its implementation in the classroom which had already shown the improvement of teachers' performance to utilize the school environment as a better source of learning.

Tabel 5. Observation Result Data

		The obs				
	Cooperation	Activity	Attention	Presentation	Total	Category
	(1- 10)	(1 - 40)	(1-20)	(1-30)	Score	
Amount	48	205	96	161	510	
Average	8.00	34,17	16,00	26,83	85,00	В

Tabel 6. Data on Learning Scenario Assessment Results

		Rated	Total	Amount	Category			
	1	2	3	4	score	of value	Category	
Amount	25	24	24	26	99	495		
Average	4.16	4.00	4.00	4.33	16.50	82.50	В	

Tabel 7. Data on Learning Implementation Assessment Results

	Rated aspect							Amount of	Cate
	1	2	3	4	5	6	score	value	gory
Amount	26	24	25	25	24	25	149	496,67	
Average	4,33	4,00	4,17	4,17	4,00	4,17	24,83	82,78	В

Tabel 8. Data on Teachers Performance Assessment Result

	Teachers									
Score	56	58	58	56	57	56	341			
Score	80,00	82,86	82,86	80,00	81,43	80,00	81,19			
Category	Good	Good	Good	Good	Good	Good	Good			

DISCUSSIONS

Entrepreneurship as a course or training in SMK, in principle, consists of three competencies that are to actualize attitudes and behavior, plan small business management and manage the small business. With the course or entrepreneurship training in SMK is expected to equip students to be able to adapt to society in facing various changes. Therefore these courses are the interdisciplinary material of knowledge. Douglas and Mill (Rusyan, 2001: 152) state that the usefulness values of society learning resources are (1) linking curriculum to society activities will develop awareness and sensitivity to social problems; (2) using the personal interests of learners will lead to be more meaningful learning for them; (3) studying the conditions of society is a scientific thinking exercise (scientific method); (4) studying the society will strengthen and enrich the curriculum through practical implementation in real situations; (5) learners gain real, concrete, realistic experience and verbalism. The cultivation of entrepreneurial attitudes and behaviors is done through habituation in everyday life either in school, in the family, or in the community.

Based on the results of research on the implementation in Cycle I, 6 teachers involved, 3 teachers had gotten the score with the category "Good" while 3 people with the category "Enough". Therefore, it was followed by the action of cycle II which had the general result, there was an improvement to a better direction that already got the category of "Good" with an average score of 81.19. This was in accordance with the established success criteria. In detail, the acquisition of the average value of teacher's ability to utilize cooperation between entrepreneurship teachers and productive teachers as a learning resource was the average value of observation results of discussion activities 79.17 in the cycle I to 85 in cycle II there was an increase of 5.83. The activity of learning scenario had average score 78,33 in cycle I to 82,50 in cycle II there is increase 4,17, learning activity or in learning process had average value 76,67 in cycle I become 82,78 in cycle II, there was an increase of 6.11.

So, with the increase showed that entrepreneurship learning with teaching factory teaching could improve teaching ability. According to Meredith, Nelson & Neck (1996: 9), entrepreneurship has the meaning of integrating personal, financial and resource personnel. Entrepreneurship is the spirit, attitudes, and abilities of individuals in handling businesses or activities that lead to seek, create, implement new ways of working, new technologies and new products or adding value to goods and services. Fayolle, Gailly, & Lassas-Clerc (2006) state that entrepreneurship education programmes had a positive impact for students. Entrepreneurship is a work or career that is flexible and imaginative, able to plan, take risks, and take decisions and actions to achieve goals. The example of the achievement of school goals with the mission to build self-reliance is through the activities of habituation, entrepreneurship, and self-planned and sustainable development (Pusat Pengembangan Tenaga Kependidikan, 2011).

Implementation of subjects or training of entrepreneurship on the competence of managing the small business is pursued related to the activities of subjects or productive training that exists in each SMK. Fayolle and Gailly (2015) research results show that the positive effects of an entrepreneurship education programs are more significant when students have weak exposure of entrepreneurship before. So that teachers/instructors should use varied learning strategies (tutorials, assignments, and hands-on experience) for improve students entrepreneurial intention. For that teachers/instructors must prepare the instrument of learning (student alloys) carefully. Therefore, business-based learning in schools is implemented in an integrated manner between business-oriented activities and improving the quality of learning. The results of research on the assessment of teachers' performance have an average score of 73.10 in the cycle I to 81.19 in cycle II, so there is an increase in the performance of entrepreneurship teachers in applying to learn with teaching factory that is equal to 8.10. Teaching factory is a learning concept in the real atmosphere, so it can bridge the gap of competence between the needs of industry and knowledge in schools. Innovative learning technologies and productive practices are the concepts of educational methods that are oriented towards the management of students' learning in order to align with industry needs (Indonesian Germany Institute, 2007).

The approach should be realized in the learning process, where learners are gradually directed to master competencies in accordance with their skills program, ranging from the most basic and simple competencies to the mastery of higher and complex competencies, to the end after the whole competence is mastered will form professional mastery of expertise. The professionalism of a person mastering a skill is determined by the mastery of the intricacies of the expertise completely from the mastery of the technical skills and soft skills related, until the personal skill and social skills needed to apply it in everyday life. The fact in the field of entrepreneurship learning in SMKN 1 Blitar, still theoretical and still verbal, had not collaborated with productive subjects in each skill program, learners should not only have the competence to produce but also had the competence to sell, therefore it is important to make the application learning teaching factory.

The skills were required by an entrepreneur according to Hisrich & Peters (2002) are technical skills, business management, and personal entrepreneurial spirit. Technical skills include: able to write, speak, hear, monitor the environment, business technique, technology, organize, build the network, management style, train, work together in teamwork. Business management includes business planning and setting business goals, decision making, human relationships, marketing, finance, bookkeeping, management, negotiation, and managing change. Bae, et al (2014) meta-analysis showed small correlation between entrepreneurship education and entrepreneurial intentions. Thus, entrepreneurship education must be supported by subsequent entrepreneurial activity in institutional environments (Walter & Block, 2016). The soul of a personal entrepreneur include discipline (self-control), risk-taking, innovation, change-oriented, hard work, visionary leaders, and able to manage change. Teaching-based teaching factory requires a comprehensive learning approach in which students' learning environments are designed to enable students to investigate authentic problems including the deepening of material from a subject topic and perform tasks with other students. The school must allow students to work independently in producing tangible results.

CONCLUSIONS

Based on results of analysis and discussion of the cycle I and cycle II demonstrated the teachers have got the score with the category "Good" while 3 people with the category "Enough". Action in cycle II with the results in general, there is an increase to a better direction that is getting the category of "Good" all with an average score of 81.19, it can be concluded that entrepreneurship learning with the application of teaching factory is very supportive of the school learning process and can improve the ability of entrepreneurship teachers at SMKN 1 Blitar. For the performance of teachers with an average score of 73.10 in the cycle I to 81.19 in cycle II, so there is an increase in entrepreneurship teachers' performance in applying factory teaching model. This study suggests to entrepreneurship teachers to include entrepreneurship competence by applying the teaching factory to every learning process in each skill program. In developing learning scenarios to maximize the cooperation between entrepreneurship teachers with productive teachers in accordance with learning materials as learning resources, and intensify coordination with each department.

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