Evaluation of Entrepreneurship Learning Programs in Vocational Schools

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ABSTRACT

This study aims to determine the effectiveness of the entrepreneurship subject learning program at Purworejo State Vocational School in 2019/2020. The research uses an evaluation research approach (evaluation research). The evaluation model used is the EKOP model (Evaluation of Learning Quality and Learning Output). The population of all State Vocational Schools in Purworejo Regency is 7 State Vocational Schools. The sample amounted to 2 SMK, namely SMKN 2 and SMKN 3. Each SMK was taken two majors as samples. Sampling using cluster random sampling. From the four majors obtained a sample of 299 students as respondents. The data collection method used a questionnaire with a rating scale of 4 and document analysis. Data analysis used descriptive analysis. The results of the teacher performance evaluation average score = 3.22 with a classification of "good", the average score of learning facilities = 3.26 with a classification of "very good", class climate average score = 3.02 with a classification of "good", student attitudes average score = 3.12 with a "good" classification, learning motivation average score = 3.01 with a "good" classification, entrepreneurial interest average score = 3.22 with a "good" classification, and academic skills from the end-semester assessment average score = 2.82 for the scale and 82.29 for the scale of 100 with a classification of "good". The quality of learning with a mean total score = 3.13, classification "good". While the learning output with a mean total score = 3.02 with a classification of "good". The average learning program evaluation score = 3.07 "good" qualification. Based on these results, it can be concluded that the entrepreneurship learning program at Purworejo State Vocational School in 2019/2020 has been going well.

Keywords: *Learning Quality; Learning Output; Academic Skills*

1. INTRODUCTION

Indonesia is one of the largest population countries in the world, which is approximately 267 million people. If the population is properly nurtured and an entrepreneurial spirit is grown, it will become a national asset as a reliable human resource and able to compete in the global market. According to the Director General of Small, Medium and Multifarious Industries of the Ministry of Industry, Gati Wibawaningsih, currently, the number of entrepreneurs in the country is only about three percent of the total population. Based on the 2018 Global Entrepreneurship Index data, out of 137 countries, Indonesia is ranked 94th in terms of entrepreneurship. This position is still lagging behind several other Southeast Asian countries. This is because Vietnam is in 87th place, the Philippines is 76th, Thailand is 71st, Malaysia is 58th, Brunei Darussalam is 53rd, and Singapore is 27th [1]. The World Bank requires

the ideal percentage of the number of entrepreneurs of a country to be 4 percent of the total population of the country concerned.

To introduce entrepreneurship from an early age, the government has included craft and entrepreneurship subjects in the curriculum at the elementary and secondary education levels, be it elementary school (SD), junior high school (SMP), high school (SMA), vocational high school. (SMK) even entrepreneurship learning is included in the higher education curriculum (PT). This is done to form an entrepreneurial character that can foster entrepreneurial interest and produce young entrepreneurs in Indonesia. However, these efforts have not been fully successful, apart from the relatively low number of entrepreneurs, the number of unemployed in Indonesia is quite high. The number of open unemployment until the end of 2020 reached 9.77 million, [2]. Even the open

unemployment rate (TPT) according to the Ministry of Manpower *(Kemnaker)* is actually dominated by SMK graduates. Based on data from the Central Statistics Agency or BPS [2], according to education completed,

from 9.77 million open unemployment rates at the end of 2020 from elementary school graduates to university graduates can be detailed as in the following diagram (see Figure 1).
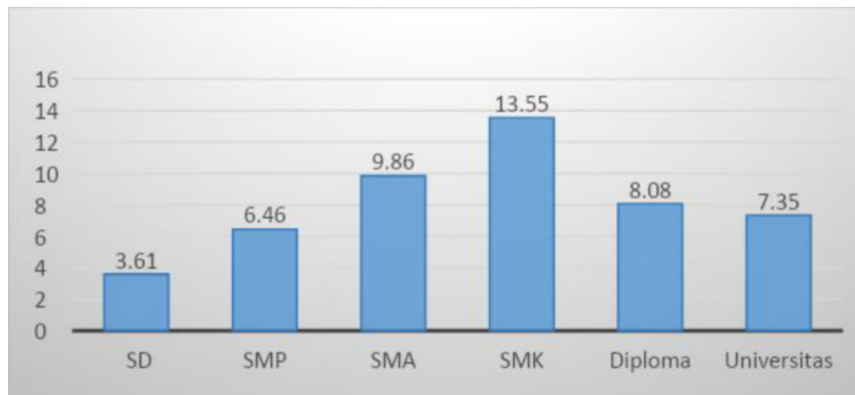

Figure 1 Percentage of Unemployment Rate Open by Type of End of Year Education 2020

Therefore, it is necessary to evaluate the effectiveness of the entrepreneurship learning program in SMK that has been running so far. The results showed that not all entrepreneurship learning in SMK has been running and working well [3], [4]. SMKN 1 Bantul shows that the results of entrepreneurship learning through the Business Centre at SMK N 1 Bantul are generally not good because it is only based on achieving sales targets so that learning outcomes do not reflect changes in entrepreneurial attitudes and behaviour, [5]. SMK Negeri 7 Yogyakarta shows the results that the entrepreneurship learning program at the Business Center is in the less effective category with a negative-negative-positive-negative CIPP position (- - + -), [6]. Research Ari Prayuda Subekti's, in Malang City concluded that the learning of Craft and Entrepreneurship was included in the qualifications quite well with an achievement of 71.63%. Andi Muhammad Arif's research in Makassar City concluded that the entrepreneurship learning program was in good qualification. Based on the student's point of view through a questionnaire, the implementation of learning crafts and entrepreneurship of each teacher achieves good criteria, [7]. Based on the above background, it is necessary to evaluate the effectiveness of the Entrepreneurship learning program at the State Vocational School of Purworejo Regency.

There are many evaluation models developed by experts that can be used to evaluate learning programs. Kirkpatrick DL, an expert in evaluating training programs in the field of HR development, besides offering an evaluation model called *Kirkpatrick's training evaluation model,* also points to other models that can be used as options in evaluating a program. The designated models include: Jack PhilPS': Five Level ROI Model, Daniel Stufflebeam's: CIPP Model (Context, Input, Process, Product), Robert Stake's : Responsive Evaluation Model, Robert Stake's: Congruence-Contingency Model, Kaufman's: Five Levels of

Evaluation, CIRO (Context, Input, Reaction, Outcome), PERT (Program Evaluation and Review Technique), Alkins' UCLA Model, Michael Scriven's: Goal-Free Evaluation Approach, Provus's : Discrepancy Model, Eisner's: Connoisseurship Evaluation Models, Illuminative Evaluation Model, dan Portraiture Model, [8], [9].

In addition to the models above, there is also an evaluation of the EKOP model. The model is the result of a competitive grant research which is also the author's final project in the Postgraduate Education Research and Evaluation program at Yogyakarta State University in 2008. This model is a modification of Kirkpatrick's evaluation. the model and the model CIPP (Contex, Input, Process, Product) of Stufflebeam [10]. The assumption that underlies the idea that the evaluation of the Kirkpatrick model can be modified to evaluate the success of the learning program because of the various similarities between the training program and the learning program. Among the various similarities are: a) the core or focus of activities between training and learning in schools is the same, namely the occurrence of a learning process for trainees and students; b) aspects of learning activities between training and learning activities in schools are also the same, namely aspects of knowledge, attitudes and skills (knowledge, attitude and skills or psychomotor). The implementation of the Kirkpatrick evaluation model in the field of learning programs needs to be modified because of the differences in the characteristics of learning activities in schools and learning activities in training programs.

In addition to the modification of the Kirkpatrick model, the EKOP model is also a modification of the CIPP model, namely at the levels *process* and *product.* The term *product is* limited to *impact evaluation,* does not cover *effectiveness evaluation, sustainability evaluation and transportability evaluation*. The quality of learning is a representation of the process, while the

output is a representation of the *product*. The aspects *context* and, *input* although they do not stand alone as an evaluation aspect, are represented in the quality of learning, namely in the aspect of learning facilities, especially the context of certain classrooms, which are assumed to be one of the representations of the aspects *context* in the CIPP model concept, while teacher performance is the embodiment of competence, [11], [12] [13]–[15]. Teachers, as well as student attitudes and motivations can be assumed as one of the representations of aspects *input* in the CIPP model concept, so that the EKOP model is simpler in implementation than the CIPP model without reducing the completeness of the required information.

2. METHOD

This research uses an *evaluation research design*, [16]. Evaluative research requires requirements that must be met, namely the existence of criteria used as a comparison of the data obtained, after the data is processed and is the real condition of the object under study. The model used is EKOP (Evaluation of the Quality of Learning and *Output* Teaching.

This research was conducted at SMK Negeri Purworejo regency, which was conducted in November 2020 to April 2021. The study population throughout the

SMK in Purworejo, amounting to 7 SMK. The sample amounted to 2 SMK, namely SMKN 2 and SMKN 3. Two majors were taken as samples from each SMK. From SMKN 2 the majors in financial accounting & institutions were chosen and the department of office administration was chosen, while from SMKN 3 the majors in fashion and beauty were chosen. Each major was taken by class XII students as a sample. Sampling using cluster random sampling. From the four majors obtained a sample of 299 students as respondents.

Methods of data collection using questionnaires and document analysis methods, [9]. The questionnaire uses a rating scale with 4 alternative answers. The questionnaire method was used to collect data on learning quality and learning output, while document analysis was used to collect data on academic skills in the form of final semester assessment results (PAS) for even entrepreneurship subjects for the 2019/2020 school year. The instrument validity test uses construct validity, while the reliability test uses internal reliability with the formula Alpha Cronbach [10]. The data analysis technique uses descriptive analysis, namely by comparing the average scores of the results of measuring the quality of learning and outputs learning with assessment standards. Respondents' answers to the questionnaire were scored with the following conditions (See table 1):

Table 1 Assessment criteria (scale 1-4 with positive and negative statements)

Answer Options	Score	
	Positive Statements	Negative Statements
Very Good/Always	4	1
Good/Often	3	2
Less Good/Sometimes	2	3
Not Good/Never	1	4

Academic proficiency data are taken from the results The end of semester assessment (PAS) is converted from a scale of 100 to a scale of 4 with a minimum completeness criterion (KKM) which is a score of 70 as

the minimum limit. Based on the KKM, the criteria for the classification of learning outputs and a scale score of 4 can be arranged as follows (see table 2).

Table 2 Classification of values based on PAS

PAS Score Scale 100	Classification	Score Scale 4
90.0 – 100	Very Good	4
80.0 – 89.9	Good	3
70.0 – 79.9	Enough	2
< 70.0	Less	1

Score of learning quality and learning output is calculated on average then compared to the standard evaluation of learning programs to determine the

effectiveness of the implementation of learning programs using a scale of 4. The standards used are as follows (see table 3).

Table 3 Standards for Evaluation of Learning Programs

Formula for	Average Score	Qualification
$X > \overline{X}_i + 1.5 \times Sb_i$	□ 3.25	Very Good
$\overline{X}_i > X \ \overline{X}_i + 1.5 \times Sb_i$	□ 2.5 – 3.25	Good
$\overline{X}_i - 1.5 \times Sb_i < X \ \overline{X}_i$	□ 1.75 – 2.5	Enough
$X \ \overline{X}_i - 1.5 \times SB_i$	≤ 1.75	Less

Description:

$\overline{X}_i$ (ideal mean)	=	$\frac{1}{2}$(ideal maximum score + ideal minimum score)
Sb_i (ideal standard deviation)	=	$\frac{1}{6}$(ideal maximum score - ideal minimum score)
X	=	empirical score

3. RESULT AND DISCUSSION

3.1. Learning Quality

Evaluation of learning quality includes assessment of teacher performance in the classroom, learning facilities, classroom climate, attitudes and student motivation. Based on the respondent's assessment, the average score of the components and sub-components of the quality of learning at SMK Negeri Purworejo is as follows:

3.1.1. Teacher Performance

Assessment of entrepreneurship teacher performance is based on five aspects, namely: a). Ability to understand students, b). Ability to plan learning, c). Ability to carry out learning, d). Ability to assess student learning outcomes, and e). The ability to relate the topics taught to other relevant aspects. Teacher performance is focused on teacher performance in classroom learning. The results of the assessment obtained an average total score = 3.22 with "good" qualifications. Thus, it can be concluded that the average entrepreneurship subject teacher at SMK Negeri Purworejo is able to understand students well, able to plan lessons well, able to carry out learning well, able to assess student learning outcomes well, and able to relate the topics taught. with other relevant aspects as well as current issues related to entrepreneurship.

This result is supported by previous research that vocational entrepreneurship teachers have good performance [17], [18] [19]–[21]. Even though it is already good, it still needs to be improved in order to achieve excellent performance, because the quality of teachers has an influence on the quality of learning and learning output [11], [22]–[24].

Table 4 Learning Quality Score

No.	Sub-Component	Mean Score	Qualification
1	Teacher Performance	3.22	Good
2	Learning Facilities	3.26	Very Good
3	Class Climate	3 ,02	Good
4	Student Attitudes	3,12	Good
5	Learning Motivation	3,01	Good
	Average Total Score	3,13	Good

3.1.2. Learning Facilities

Assessment of entrepreneurship learning facilities is focused on aspects of the completeness and condition of classrooms, completeness of tools/media and practice rooms and conditions of tools/media for entrepreneurship practice. The results of the respondent's assessment obtained an average total score = 3.26 with "very good" qualifications. These results indicate that SMK Negeri Purworejo has adequate capital to equip its students with knowledge and skills in the field of entrepreneurship. The results of this assessment strengthen the previous research conducted [25] [26], [27], which concluded that overall learning facilities at Private Vocational Schools in Bandung City are in the good category according to standards. This means that overall, it is good, it is in accordance with the standard of learning facilities according to Government Regulation no. 40 of 2008. In general, public vocational schools have better learning facilities than private vocational schools.

3.1.3. Class Climate

Assessment of classroom climate uses four indicators, namely: a) student*cohesiveness*in class, b) learning activities *student involvement in* economic, c) *student*

satisfaction during economics learning, and d) teacher support (*teacher support*) in entrepreneurship learning activities. The results of the respondent's assessment obtained an average score = 3.02 with "good" qualifications.

Entrepreneurship learning activities at SMK Negeri Purworejo generally have a good classroom climate. Learning activities are not only dominated by teachers but also involve many students (*student centered* learning) so that students feel satisfied with the learning activities that have been carried out. This result strengthens the previous research conducted [28], which concluded that in general students judged that the climate of Class XI Office Administration at SMK Negeri 1 Jambi City was in a good category. Class climate has an influence on learning motivation and student learning outcomes [28], [29] [4], [30]. Research conducted "*An orderly classroom conducive to learning is strongly correlated with student achievement*"[31].

3.1.4. Student Attitudes

Assessment of student attitudes is based on three aspects, namely: a). Understanding the benefits of entrepreneurship learning, b). Enjoyment of entrepreneurship lessons, and c). Tendency to act and behave during learning. Based on the results of the respondent's assessment, the average score = 3.12 with "good" qualifications, meaning that the Purworejo State Vocational School students generally have a good attitude when participating in entrepreneurship learning. From these three aspects, understanding the benefits of entrepreneurship learning obtained the highest score of 3.22 with good qualifications, meaning that students in general already understand the importance of entrepreneurship subjects as provisions in life and in their lives. The lowest score on the aspect of feeling happy about entrepreneurship lessons is 2.67 with good qualifications, meaning that most students have feelings of pleasure towards the lessons and learning process of entrepreneurship, but not all students have the same feelings. In the future, it is the teacher's task how to choose learning strategies that make all students happy with subjects and the entrepreneurial learning process, because students who feel happy will usually be followed by high learning motivation which will ultimately be able to improve student achievement.

3.1.5. Learning Motivation

Based on the results of the assessment, the average score = 3.01 with "good" qualifications. This means that in general, Purworejo State Vocational School students have high motivation to learn entrepreneurship. These results are reinforced [32], concluded that students of class X SMK Catering Ma'arif 2 Sleman most students motivation to learn are quite large.

In this study, students' learning motivation is based on five indicators, namely persistence in learning, tenacity in the face of difficulties, interest, independence in learning, and not easy to let go of what is believed. Of the five indicators that obtained the lowest score on tenacity faced difficulties with a score of 2.6 including good classification but the lower limit. These results show that some students of SMK Negeri Purworejo are not tenacious when facing difficulties, even though in entrepreneurship, they will experience many challenges which if easily discouraged will lead to failure in entrepreneurship. These results are not much different from the research conducted [33], which concludes that the level of student learning motivation from the highest to the lowest is interest, desire to succeed, perseverance, student environmental conditions, efforts to improve failure, tenacity in the face of difficulties, student abilities, and the level of student self-awareness. The low tenacity is what makes it one of the factors for the low number of SMK graduates to pursue the world of entrepreneurship.

Student learning motivation has a strong enough influence on the success of the process and student learning outcomes, [34], [34]. One indicator of the quality of learning is the enthusiasm and motivation to learn from students. Ormond describes how the influence of motivation on learning activities as follows. Motivation has several effects on students' learning and behaviour: It directs behaviour toward a particular goal. It leads to increased effort and energy. It increases initiation of, and persistence in activities. It enhances cognitive processing. It leads to improved performance [35].

The mean total score for learning quality = 3.13 including good qualifications, meaning that entrepreneurship learning activities at SMK Negeri Purworejo have been running according to the previously planned program. These results strengthen previous research that the quality of entrepreneurship learning has been going well [8], [24]. This success cannot be separated from the support of good entrepreneurship learning facilities and good teacher performance. Entrepreneurship learning facilities have a positive and significant effect on the quality of entrepreneurship learning [36], the quality of teachers significantly affects the quality of learning [22].

3.2. Outputs Learning

outputs are divided into two aspects, namely academic skills (academic skills) which are taken from the data from the end of semester assessment (PAS) and interest in entrepreneurship. For these two aspects (see Table 5), the following results were obtained.

Table 5 Learning Output

No.	Sub-component	Mean Score	Qualification
1	Academic Proficiency	2.82	Good
2	Entrepreneurial Interest	3.22	Good
	Average Total Score	3.02	Good

3.2.1.   Academic Proficiency

The average academic skill score is taken from the assessment end of semester (PAS) = 82.29 with "Good" qualification. When converted to a scale of 4, the average score = 2.82 with a "Good" qualification. These results indicate that in general, SMK Negeri students in Purworejo have good academic skills in the field of entrepreneurship. This is not much different from the results of entrepreneurship learning in other vocational schools [25], [28], [37].

Even though it is a good qualification, it is still in the lower limit, both for a scale of 100 and a scale of 4, besides that the results above are also not optimal. To get to a very good qualification, it still takes effort and a struggle that is not light. Therefore, in the future, the quality of learning still needs to be improved in order to obtain better learning outcomes, because the quality of learning has an influence on learning output [3], [22], [38], [39].

3.2.2.   Interest in Entrepreneurship

The results of the assessment of students' interest in entrepreneurship obtained an average score = 3.22 with "good" qualifications. This shows that by knowing and mastering entrepreneurship learning materials ranging from making products (crafts, engineering, processing, cultivation) according to the local potential where the SMK is located, calculating product selling prices, product marketing, product sales, opportunities and challenges in entrepreneurship to business licensing procedures, has succeeded in growing students' interest in entrepreneurship. These results are reinforced by previous studies [8], [40]–[42]. The provision of entrepreneurship materials is effective enough to foster interest in entrepreneurship [43].

The average score of the assessment that the output of entrepreneurship learning at the State Vocational School of Purworejo Regency = 3.02 includes good qualifications, meaning that it has been running according to the previously planned program. This success cannot be separated from the support for the quality of learning that has gone well, because the quality of learning has an influence on learning output [22], [38], [39].

Score of the learning program is the average of the components of the quality of learning and the learning output obtained by the average score = 3.07 with good qualifications. This means that the entrepreneurship learning program at SMK Negeri Purworejo Regency has

been running well so far, both in terms of the process or quality of learning and the results (learning output). However, from the point of view of the quality of learning and learning outcomes have not been maximized. This is not only in the Purworejo Regency State Vocational Schools but also in vocational schools in several other areas [44]. Therefore, in the future, efforts need to be made to improve the quality of learning, both from the aspect of teacher performance, learning facilities, classroom climate, student attitudes and student learning motivation. With an increase in the quality of learning, it is expected to be able to increase learning output because learning output is influenced by the quality of learning [22], [38], [39].

The success of the entrepreneurship learning program has not been followed by success in creating young entrepreneurs from among vocational school graduates. This is indicated by the large number of vocational school graduates who are unemployed, even for open unemployment in Indonesia the highest percentage of vocational graduates [45]. There needs to be further research on how many graduates of SMK Negeri Purworejo are pursuing entrepreneurship. From previous research, entrepreneurship learning has succeeded in providing knowledge and skills and growing interest in entrepreneurship but has not been able to produce entrepreneurs as expected [9]. According to Ergen Sitorus, in general, those who have not started entrepreneurship have obstacles including: lack of capital, space and encouragement, but they already have plans to start a business or arrange things needed in entrepreneurship [46]. Therefore, to produce young entrepreneurs from SMK graduates, there needs to be further assistance for students who have a high interest in entrepreneurship.

There are several factors that cause not many SMK graduates to pursue entrepreneurship as a profession. The learning that has been used by teachers of Craft and Entrepreneurship subjects, especially at SMK Negeri 2 Depok, Sleman, has not been to the formation of skills through entrepreneurship, in general it is still limited to understanding how to sell goods, and maximizing goods so that they have a selling value, [37]. One of the problems of learning crafts and entrepreneurship (PKWU) is that teachers teach PKWU, not teachers who have special expertise in the field of PKWU, [47].

The ineffectiveness of entrepreneurship learning in Vocational Schools, especially in producing entrepreneurs, can be seen from several supporting factors, including: *first*, entrepreneurship teachers do not

have a business, it can reduce the entrepreneurial spirit of students because students need real learning not just a theory, [48]. Entrepreneurship teachers who do not have businesses will have difficulty in teaching marketing because they do not know the dynamics of an entrepreneur so that the theory given to students is less meaningful. *Second*, the low commitment of teachers to entrepreneurship. This can be seen from the lack of seriousness of teachers towards entrepreneurship, they still underestimate the culture of entrepreneurship. *Third*, the lack of entrepreneurship teachers who really have entrepreneurial skills because some entrepreneurship teachers come from undergraduate graduates who lack teaching hours in schools, not those who have entrepreneurial competencies.

4. CONCLUSION

In general, the entrepreneurship learning program at SMK Negeri Purworejo Regency has been running well, both in terms of the process or quality of learning and the results (learning output). However, from the point of view of the quality of learning and learning outcomes have not been maximized. This is not only in the State Vocational Schools of Purworejo Regency but also in a number of SMKs in several other areas. Therefore, in the future, efforts need to be made to improve the quality of learning, both from the aspect of teacher performance, learning facilities, classroom climate, student attitudes and student motivation, especially the tenacity to face challenges.

To increase the output of entrepreneurship learning, in the future there needs to be an increase in the quality of learning, both from the aspect of teachers, facilities, class climate as well as student attitudes and learning motivation, especially the tenacity to face challenges. Teachers who teach entrepreneurship should not only have educational qualifications according to applicable regulations but also have experience as entrepreneurs.

There needs to be further research to find out how many percent of Purworejo State Vocational School graduates are pursuing entrepreneurship.

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