

## INCREASEMENT ENTREPRENEURIAL VALUES IN SMK MUHAMMADIYAH 3 YOGYAKARTA IN THE FIELD OF BUILDING AND INFORMATION DESIGN EXPERTISE STUDENTS WITH IMPLEMENTATION OF “EKRENFATIHA” LEARNING MODEL

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**Abstract:** This study aims to reveal the increment of entrepreneurial values in the major of Building Modeling and Information Design Expertise in SMK Muhammadiyah 3 Yogyakarta after using the implementation of the “EkRenFaTiHa” learning model. This study adopted a descriptive quantitative research design—the questionnaire data using the Likert scale assessment 4 composed of 17 aspects of entrepreneurial values. The data was analyzed by counting the average values from each aspect of entrepreneurial attitudes; then it will be converted into percentages. From this study, it is shown that there is an increase, proven by the rising average value from 17 aspects 83,33% to 85,39%. The lowest and highest range values from pre-treatment are about 75% to 96%, while the values from post-treatment are shown to be about 77% to 96%. Several aspects experienced a significant increase e.g. independent, disciplined, and communicative approximately 5-8% higher than the previous. Meanwhile, risk-taking, action-oriented, hard work, cooperative, responsible, persistent, committed, and inquisitive showed a slight increase of around 1-4% higher. Nonetheless, several sectors are stable. From this study, it can be concluded that there is an increment from 11 entrepreneurial values after implementing the “EkRenFaTiHa” learning model, while 6 values remaining show stability.

**Keywords:** *EkRenFaTiHa, Entrepreneurial Values, Entrepreneurship, Learning Model, Vocational High School.*

Submitted: 2024-03-19; Revised: 2024-05-16; Accepted: 2024-06-26

### 1. Introduction

Indonesia is one of the developing countries that have several fundamental crises that should be executed by starting influential solutions from the root stage (Mubarak & SBM, 2020). The problems that usually occur are joblessness which generates several unbalanced economic sectors, identity matters, unsporting societies because of passive life, crime rate enhancement, drug consumption, suicidal issues, and dissolution situations that can cause worsened economic rates toward citizens (Buheji, 2019; Lim & Lee, 2019; Meer, 2016).

According to the Central Statistics Agency, it is shown from 212.59 million people in Indonesia can be listed as working-age population, however just only 147.71 million people have title workforce population. Furthermore, the data given is divided into two groups called employment and unemployment. The unemployment percentage in August 2023 delineated a slight decline from 5.86% to 5.32% decreasing 0,54% compared to August last year. In addition, from 7.86 million unemployed citizens, vocational graduates dominated with 9,31% (Statistik, 2023) due to the low quality and motivation of Indonesia’s human resources to become entrepreneurs. In response to the statements, the rise in the unemployment rate can be caused by several problems, including (1) unrealistic job requirements that are inappropriate for students’ abilities, (2) an imbalance between sources and

needs, (3) highly selective processes in finding prospective employees, (4) the void of contemplation and occurrence in the real world of works (Hariyanto, 2023; Hwang, 2017).

The foremost influencing standard is enhancing the educational field in Indonesia which its upstream level can be solved properly with the better improvement of people's quality and delivering a higher status of human beings (Tjipto Djuhartono, Prasetyo Ariwibowo, 2021). The quality in the educational field should be clarified by analyzing the managerial system. In addition, mandatory education efforts need to be advanced so education can be the main support for widening the educated society based on the mutual advantages in the environs of international challenges (Gerhana et al., 2019; Prihadi et al., 2021).

Vocational high school is one of the formal secondary levels of education in Indonesia which can be chosen by students for their next options to continue study after finishing junior high school education (Fadilah et al., 2020). The main purpose of the Indonesian government in holding this program is to generate students who are ready to work in the real fields corresponding to the specific competencies that they have learned and practiced while studying (Permendikbud, 2016; Purnomo et al., 2020; Sudjimat et al., 2020). Nevertheless, the program is not only for preparing graduates to become prospective workers armed with skill competencies to achieve a prosperous life but also to pursue their future careers by continuing studies in universities, being motivated and diligent individuals, and encouraging them to have a wealth of experience in the professional world (Hartanto et al., 2019, 2020).

Entrepreneurship is an essential point that leads people to become entrepreneurs, recently carried out some research by experts related to this field (Atmojo, 2022). It has been shown that authorizing entrepreneurial values can be started from an early age because of crucial reasons (Muslim & Makassar, 2023; Paramudita Listiani et al., 2020; Tuti Anggraini et al., 2022). One of the beneficial reasons is that it can boost economic flows (Idris, 2021). For this reason, students are possibly introduced to business chances in the world and need to learn independently, be brave enough to take risks and try to decide with their decisions (Kadir et al., 2012). Entrepreneurship is essential for enhancing the socioeconomic background because it has a strong possibility to leverage one's ability to become an entrepreneur by involving people with the necessary skills and changing their basic mindset (Bharucha, 2019; Pardo, 2013; Tedjakusuma et al., 2019). Expectations have been putting on educators as the main actors who respectively can identify with today's actual issues about economic challenges and chances and make sure students in the 21<sup>st</sup> century can obtain several skills necessities: knowledge, soft skills, hard skills, and attitudes which are supporting the needs of living in this era (Perry, 2018; Trish Boyle, 2012). Ten advantages of learning entrepreneurship skills: 1) providing and widening new job opportunities; 2) empowering societies' well-being; 3) enhancing the vitality of entrepreneurial values; 4) embedding and expanding creativeness; 5) innovation development; 6) managing self-control; 7) drilling trustworthiness; 8) running over reputability; 9) building people's independence; 10) generating a higher level of people's constancy and competitiveness (Kyari, 2020; Linton & Klinton, 2019; Mahmood et al., 2020). Following that, the entrepreneurial skills that vocational high school students should have can be obtained with an effective and efficient learning model that supports them in acquiring their entrepreneurial spirit to gain the competencies and knowledge that will be needed to conformance the real business flows (Kusdiyanti et al., 2021; Silvana et al., 2021).

Entrepreneurship in the educational field is an appliance accustomed to increasing entrepreneurial activity (Bischoff et al., 2018). The learning model is a crucial requirement that should be implemented while learning by teachers (Ahmed et al., 2020; Santoso et al., 2021). This study gives a real example of introducing one of the learning models developed called "EkRenFaTiHa" (Lastariwati, 2014) which has been implemented in SMK Muhammadiyah 3 Yogyakarta. There were found several main problems led to this study; e.g. (1) the lack of real engagement from the industries in arranging the curriculum and giving practical understanding will make students underprepared for overcoming the obstacles in the business world, (2) limited resources to support learning activities, including textbooks, primarily software related to the majors, facilities for reinforcing the

entrepreneurial studies in school, (3) some teachers have not received training in the entrepreneurial learning subject which can be the foremost reason for affecting their ability to provide students with a deep understanding of the concept of entrepreneurship, (4) lack of student motivation in entrepreneurship subject influenced by their leverage of understanding of the relevance of the material to the world of work, as well as a lack of encouragement and rewards, (5) entrepreneurial learning that only focus on theoretical sector only without balancing with practical resources make students do not have skills for implementing the entrepreneurial concepts and values in real life, (6) students found difficulties to understand the concept of developing, promoting, and distributing products and services from their own business products.

The “EkRenFaTiHa” learning model is a model purposed to achieve entrepreneurial values that students should gain to prove their potential assessment benchmarks for being entrepreneurs (Lastariwati, 2014). Entrepreneurial values are the personal values associated with proactive strategies (Dhikrul, 2012). The application of entrepreneurial values will be reflected in entrepreneurial attitudes and behaviors (Widyastono, 2010). The number of values of entrepreneurship education that can be taught consists of seventeen values that are minimally taught in vocational high schools and only eight descriptions of entrepreneurial education values that can be added gradually according to the expected needs (Kementrian Pendidikan Nasional, 2011). The process of learning using the “EkRenFaTiHa” learning model that was implemented with the integration process of learning, is expected to realize the internalization of entrepreneurial values in students. This learning development is also carried out as an effort to improve entrepreneurship learning in SMK Muhammadiyah 3 Yogyakarta in the major of Building Modeling and Information Design.

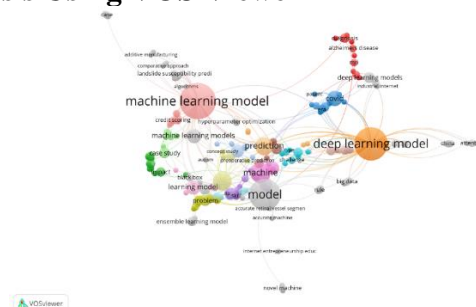
This study aims to uncover the increase in the percentage of entrepreneurial values for students in SMK Muhammadiyah 3 Yogyakarta after getting treatment in learning activities with the “EkRenFaTiHa” learning model that was developed.

## 2. Research Method

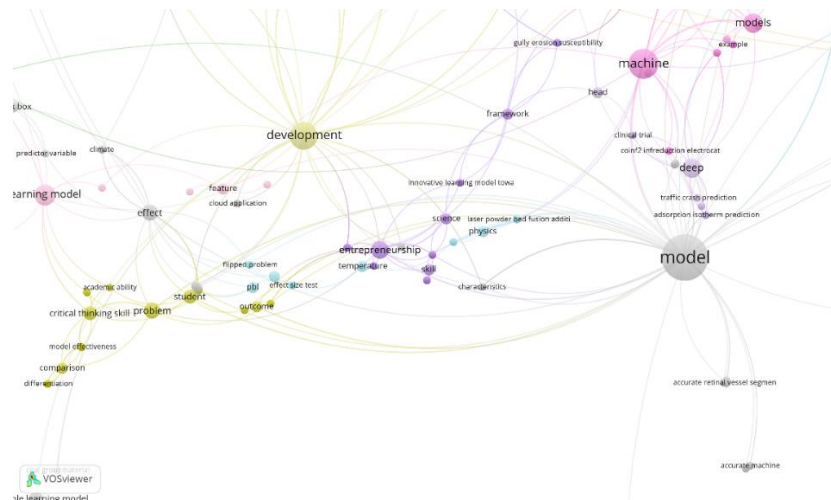
This study adopted a descriptive quantitative research design. The resulting quantitative data will be further expressed descriptively. The population of this research is 30 students in 11<sup>th</sup> grade, located at SMK Muhammadiyah 3 Yogyakarta in the Entrepreneurship subject in the Field of Building Modeling and Information Design. The data was collected in several ways, including observation, interview, questionnaire, and documentation. The questionnaire data using the Likert scale assessment 4 which is composed of 17 aspects of entrepreneurial values. Two types of data will be obtained which are pre- and post-questionnaire after students had treatment by implementing the “EkRenFaTiHa” learning model for 8 meetings. The data was analyzed by counting the average values from each aspect of entrepreneurial attitudes; then it will be converted into percent which aimed to make it easier to see the percentage increase in the value of entrepreneurship owned by students. As previously explained, the analysis technique is used descriptive quantitative by calculating the average which was then converted into percent.

### 3. Results and Discussion

### 3.1. Topics Field Analysis Using VOS Viewer



**Figure 1.** Shows the 3 Largest Sectors from the Literature Used



**Figure 2.** Details the Relationship between Learning Models, Entrepreneurship, and Learning Model Development

In this section, the foremost visualization that the author used is title field analysis using VOS Viewer. Title field analysis is used to represent the correlation between entrepreneurial values and the learning model. With the help of VOS Viewer software, it was found that 3 sectors are dominating the topics which are the machine learning model, deep learning model, and model in general. This way helps to identify the major topics in the related field. The following figure represents the associated title keywords that have more detailed information on entrepreneurship, development, and models. From these sectors, it is shown that just only a few works of literature have been published related to the topics. Due to the lack of a literature review, the author initiated the research to find another invention related to the topic.

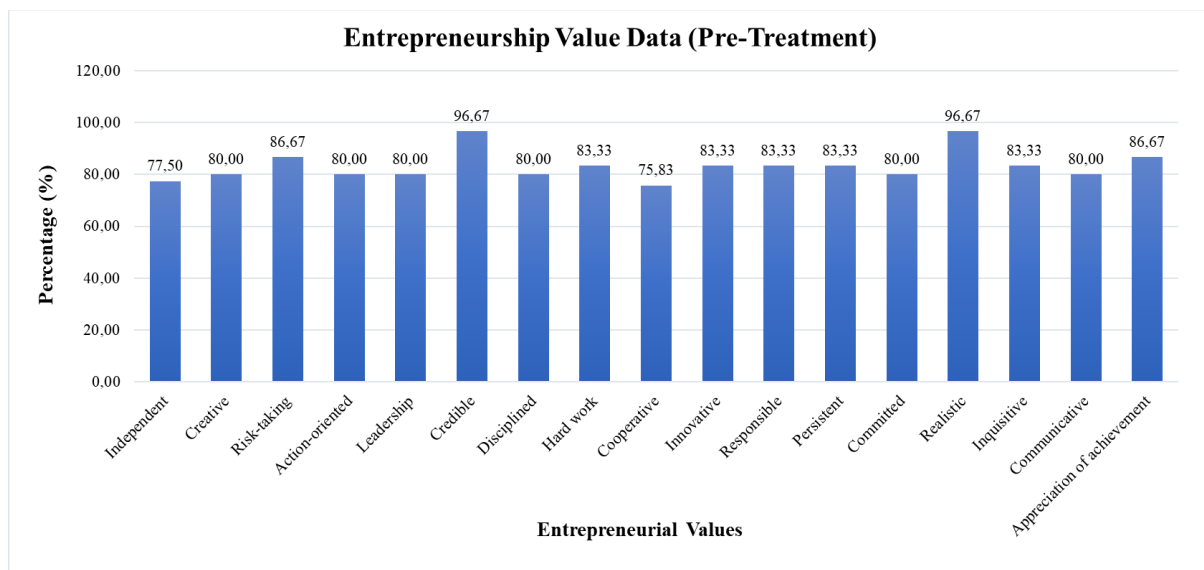
### 3.2. The Percentage Data of Pre-Assessment of Entrepreneurial Values

Table 1 gives the results for the pre-assessment of entrepreneurial values of students which are divided into 17 aspects. The most dominant sector is shown as “credible” and “realistic” with a percentage of 96,67%. Meanwhile, the lowest entrepreneurial value is “cooperative”. However, the “independent” entrepreneurial value shows the bottom two by a value of 77,5%. In addition, the average percentage of entrepreneurial values of students is shown from 80,00% to 83,33% for the other 11 aspects. Therefore, there is an exception for “risk-taking” and “appreciation of achievement” which expose with 86,67% lower than the highest one.

**Table 1.** Results for Pre-Assessment of Entrepreneurial Values of Students

No.	Entrepreneurial Values	Number of Respondents	Maximum Value	Minimum Value	Score	Average Values	Percentage (%)
1	Independent	30	120	30	93	3,10	77,50
2	Creative	30	120	30	96	3,20	80,00
3	Risk-taking	30	120	30	104	3,47	86,67
4	Action-oriented	30	120	30	96	3,20	80,00
5	Leadership	30	120	30	96	3,20	80,00
6	Credible	30	120	30	116	3,87	96,67
7	Disciplined	30	120	30	96	3,20	80,00
8	Hard work	30	120	30	100	3,33	83,33

No.	Entrepreneurial Values	Number of Respondents	Maximum Value	Minimum Value	Score	Average Values	Percentage (%)
9	Cooperative	30	120	30	91	3,03	75,83
10	Innovative	30	120	30	100	3,33	83,33
11	Responsible	30	120	30	100	3,33	83,33
12	Persistent	30	120	30	100	3,33	83,33
13	Committed	30	120	30	96	3,20	80,00
14	Realistic	30	120	30	116	3,87	96,67
15	Inquisitive	30	120	30	100	3,33	83,33
16	Communicative	30	120	30	96	3,20	80,00
17	Appreciation of achievement	30	120	30	104	3,47	86,67
Highest Score (%)							96,67
Lowest Score (%)							75,83
Average Score (%)							83,33%



**Figure 3.** Visualization Using Bar Charts for Pre-Assessment of Students' Entrepreneurship Values

In terms of illustrating more detailed data from table 1, the bar chart above gives more clarified information about the differences of 17 aspects of entrepreneurial values. From the holistic view, it can be seen that the highest percentage obtained for assessing entrepreneurial values from students are in the “credible” and “realistic” sectors with 96,67%. Meanwhile, precisely under the highest, there is a “risk-taking” and “appreciation of achievement” fields of 86,67%. “Hard work”, “innovative”, “responsible”, “persistent”, and “inquisitive” hit the third place with a value of 83,33%. Meanwhile, the “creative”, “action-oriented”, “leadership”, “disciplined”, “committed”, and “communicative” sectors show a value of 80,00%. The independence sector delineates a value of 77,50%; followed by the lowest one which is cooperation with 75,83%.

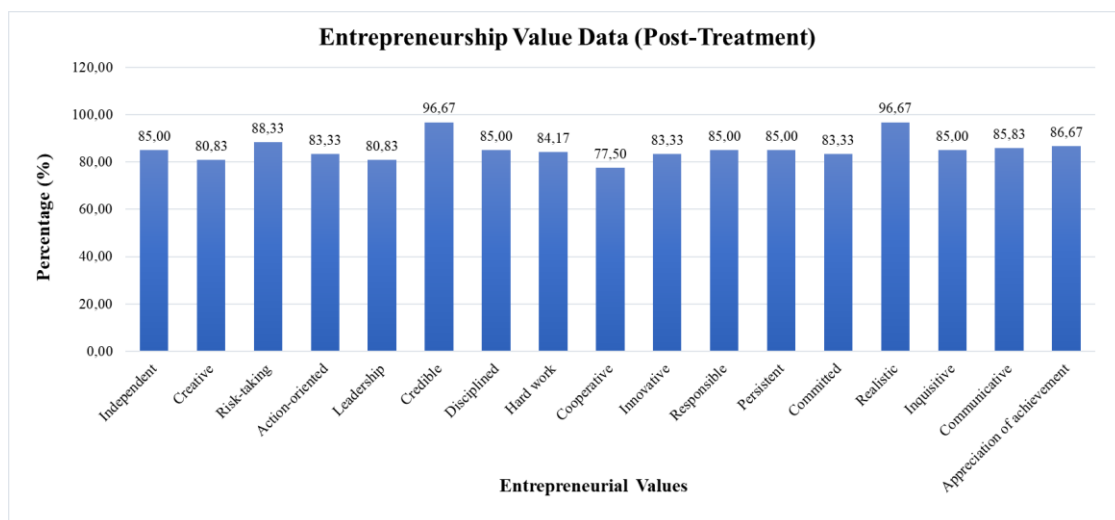
After the students had a treatment using the “EkRenFaTiHa” learning model within 8 meetings in the entrepreneurship subject, there were several improvements in entrepreneurial values gained from several sectors, showed by the table and chart below.



### 3.3. The Percentage Data of Post-Assessment of Entrepreneurial Values

**Table 2.** Results for Post-Assessment of Entrepreneurial Values of Students

No.	Entrepreneurial Values	Number of Respondents	Maximum Value	Minimum Value	Score	Average Values	Percentage (%)
1	Independent	30	120	30	102	3,40	85,00
2	Creative	30	120	30	97	3,23	80,83
3	Risk-taking	30	120	30	106	3,53	88,33
4	Action-oriented	30	120	30	100	3,33	83,33
5	Leadership	30	120	30	97	3,23	80,83
6	Credible	30	120	30	116	3,87	96,67
7	Disciplined	30	120	30	102	3,40	85,00
8	Hard work	30	120	30	101	3,37	84,17
9	Cooperative	30	120	30	93	3,10	77,50
10	Innovative	30	120	30	100	3,33	83,33
11	Responsible	30	120	30	102	3,40	85,00
12	Persistent	30	120	30	102	3,40	85,00
13	Committed	30	120	30	100	3,33	83,33
14	Realistic	30	120	30	116	3,87	96,67
15	Inquisitive	30	120	30	102	3,40	85,00
16	Communicative	30	120	30	102	3,40	85,00
17	Appreciation of achievement	30	120	30	104	3,47	86,67
Highest Score (%)							96,67
Lowest Score (%)							77,50
Average Score (%)							85,39



**Figure 4.** Visualization Using Bar Charts for Post-Assessment of Students' Entrepreneurship Values

From both representing data using table and chart, it can be seen that several sectors of entrepreneurial values experienced a sharp rise; thus, several sectors are stable without any increase. Foremost glare, “credible” and “realistic” sectors are stable and hit first place with a value of 96,67%. Subsequently, right under these sectors, there is the “risk-taking” field which shows a value of 88,33%, experiencing a slight increase from the pre-treatment. After that, “appreciation of achievement” is stable and represents a value of 86,67%. Therefore, “independent”, “disciplined”, “responsible”, “persistent”, “inquisitive”, and “communicative” sectors delineate a significant

increase of 85,00%. The “hard work” sector shows a slight rise with a value of 84,17%. Following that, “action-oriented”, “innovative”, and “committed” sectors show a small increase of 83,33%. Moreover, the “creative” and “leadership” fields also show the same value of 80,83%. Lastly, the lowest one belongs to the “cooperative” sector which still has had an improvement value of about 2,50% from 75,83 to 77,50%.

### 3.4. Word Cloud Vizualisation



**Figure 5.** Word Clouds Show the Dominance of Entrepreneurial Values

In this part, the data is provided using the Word Clouds extension. The purpose of using this feature is to provide the percentage by converting it into different sizes of words related to the 17 aspects of entrepreneurial values. By presenting the data in this way, readers can more easily find which entrepreneurial values are dominant by looking at the size of the words presented. For example, the credibility and realistic aspects, with the highest percentage of 96.67%, if converted into writing size, these two aspects show the largest size, and so on to the smallest percentage.

Following the explanation before, it can be seen that credible and realistic aspects are dominating, while cooperation, leadership, and creativity show a small size which describes a small percentage. Meanwhile, the medium size of words represents the average percentage of entrepreneurial values, e.g. independent, risk-taking, action-oriented, disciplined, hard work, innovative, responsible, persistent, committed, inquisitive, communicative, and appreciative of achievement.

### 4. Conclusion

Based on the data findings and discussion section, it can be concluded that there is an increment from 11 entrepreneurial values after implementing the “EkRenFaTiHa” learning model, while 6 values remaining show stability; however, the average percentage from the 17 aspects overall displays an increment from 83,33% to 85,39%. The lowest and highest range values from pre-treatment are about 75% to 96%, while the values from post-treatment are shown to be about 77% to 96%. Several aspects experienced a significant increase e.g. independent, disciplined, and communicative aspects approximately 5-8% higher than the previous. Meanwhile, risk-taking, action-oriented, hard work, cooperative, responsible, persistent, committed, and inquisitive showed a slight increase of around 1-4% higher. Nonetheless, several sectors are stable with the previous values; for instance, creative,

leadership, credible, realistic, innovative, and appreciation of achievement with a range of values from 80% to 96%.

### Suggestions

Based on the results of the research on increasing the value of entrepreneurship owned by students after getting the 'EkRenFaTiHa' learning model, the researcher provides several points of recommendation, including the following:

1. The EkRenFaTiHa productive entrepreneurship learning model can be implemented in every productive subject in all study programs in tourism vocational schools. All study programs in SMK, not only in Building Modelling and Information Design. Each project is adjusted to the class conditions and competencies to be achieved.
2. The implementation of the EkRenFaTiHa productive entrepreneurship learning model will be even more effective if it is fully supported by all school communities, thus instilling a culture of entrepreneurship in schools can grow well.
3. The application of the EkRenFaTiHa productive entrepreneurship learning model requires teacher creativity and innovation. EkRenFaTiHa requires teacher creativity and innovation. The pattern of learning patterns is adjusted to the conditions and situations in the classroom.

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