

# Entrepreneurship Values in the Vocational Education Curriculum

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## ABSTRACT

One important aspect that must be present in the modern education system is the inculcation of entrepreneurial characteristics in students, because modern education graduates must refer to the demands of 21st century skills, that is the 4Cs which are part of entrepreneurial characteristics, in addition to other requirements, that is graduates also have competencies in accordance with their fields. Entrepreneurial characteristics are an ideal element that every nation must have, so that the nation can move forward in building quality resources. In fact, the vocational education curriculum which is work-oriented and creates job opportunities is faced with problems in its implementation, even vocational education graduates have filled the highest unemployment rate in recent years. Therefore, this research is very important, especially to reveal the composition of entrepreneurial learning in the vocational education curriculum. This qualitative research was conducted in one of four study programs at the Faculty of Engineering, Universitas Negeri Padang, which is preparing for ASIIN international accreditation in 2021. The object of research is SAR document of ASIIN Accreditation and the website of study program. The results showed that the composition of entrepreneurship learning was very low in the vocational education curriculum. However, several courses have provided opportunities for students to develop creativity and conduct group learning to increase learning activities, think critically, and direct students to work on product-based assignments.

**Keywords:** *Entrepreneurship, Curriculum, Vocational, Education, Learning.*

## 1. INTRODUCTION

Human life is currently faced with increasing challenges and threats, including problems with education, unemployment, and the new normal condition of COVID-19 with all its complexities. In addition, almost all aspects of life have shifted with the 4.0 industrial revolution era [1][2], one of them is the educational orientation of a nation that is more directed at the creation of graduates who have entrepreneurial characteristics. In fact, there are 21st century capabilities, namely 4C; critical thinking, creativity, collaboration, and communication [3][4]. These four things also include the characteristics of entrepreneurship, namely creativity, innovation, dare to take risks, have critical thinking skills, are able to solve problems, and are able to communicate and collaborate well with others. [5], seen in Figure 1 and Table 1.



Figure 1. 21st Century Skills Framework [6]

So, it can be stated that the 21st century capability orientation is demanding the achievement of entrepreneurial abilities. The question is, why did 21st century abilities emerge? Among the many reasons behind this, one of them is the complexity of

life's problems that are not proportional to the rapid development of technology and its impacts. [7].

**Table 1.** Characteristics often attributed to entrepreneurs

Confidence	Perceverence, determination	Energy, deligence
Resourcefulness	Ability to take calculate risk	Dynamism, leadership mistakes
Optimism	Need to achieve	Versatility, knowledge of product
creativity	ability to influence others	ability to get along well with people
initiative	flexibility	intelligence
Orientation to clear goals	Positive response to challenges	Independence
Responsiveness to suggestions	Efficiency, tim competence	Ability to make decisions quickly
Responsibility	Foresight	Accuracy, thoroughness
Cooperayiveness	Profit orientation	Ability to learn from mistakes
Sense of power	Pleasant personality	Egotism
Courage	Imagination	Perceptiveness
toleration for ambiguity	aggressiveness	Capacity for enjoyment
Efficacy	Commitment	Ability to trust worker
Sensitivity to others	Honesty, integrity	Maturity, balance

Source: Characteristics often attributed to entrepreneurs [8]

Therefore, every human being must be able to adapt to this condition. In addition, the high unemployment rate accompanied by a low number of jobs causes the need for efforts to create educational graduates who are capable of entrepreneurship [9]. Moreover, the highest unemployment rate in Indonesia is filled by graduates of vocational education which incidentally is a program that produces graduates who are ready to work and are competent. Then this will be an interesting study, especially if it is associated with the latest conditions of technological development. Entrepreneurship is not easy, it is necessary to instill entrepreneurial characteristics in children from an early age [10][11]. As institutions that influence a nation, educational institutions must pay attention to this, especially if it is included in the education curriculum. Especially for educational institutions that are and will be internationally accredited, such as ASIIN, and other types. Of course, each international accreditation body has its own characteristics and indicators [12], but if we look deeper, of course the orientation of the implementation of the accreditation must refer to the demands of 21st century capabilities, namely 4C, which means internationally that education graduates must have entrepreneurial characteristics. [14]. In this case, the researcher focuses on the sub-criterion of the curriculum and workload and credit sections.

So far, several educational institutions have started trying to include entrepreneurial

characteristics in curriculum and learning, but this has not been evenly distributed. The government is also trying to create graduates with entrepreneurial characteristics, but the exact composition is not yet known. So, this condition needs to be studied scientifically. Interestingly, researchers are faced with an educational study program environment (Building Engineering Vocational Education/BEVE) which is preparing itself for ASIIN international accreditation from Germany. Therefore, researchers make this the right opportunity to conduct research by analyzing the composition of entrepreneurship learning in the curriculum of the study program to be accredited. In addition, there are 10 principles of entrepreneurship according to Nwokike (2020) [15].

**Table 2.** Principles of entrepreneurship

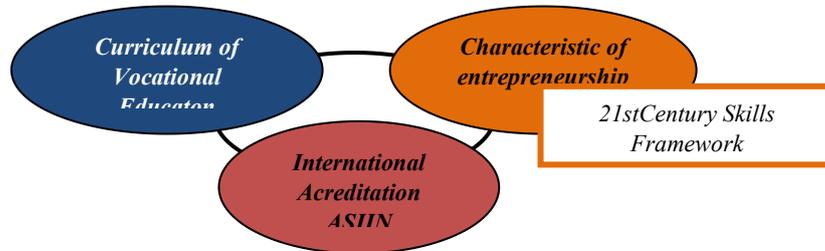
Be a solution provider	Have a vision
Choose the right team	Viable product/ service
Capital	Accountability
growth and marketing	Know your costumer
priorities	Never give up

Source: Principles of entrepreneurship [15]

A nation will have entrepreneurial abilities if they have entrepreneurial characteristics and entrepreneurial principles. If it is related to the 21st Century Skills Framework, it can be seen that in the learning & innovation skills section, the demands that must be possessed are part of the entrepreneurial characteristics, namely; critical thinking, creativity, collaboration, and communication.

In Figure 1 there are four sections that are focused on supporting the 21st Century Skills Framework, namely standards & assessments, curriculum & instruction, professional development, and learning environments. In this case, it is studied about the curriculum and is associated with the application of entrepreneurial characteristics as part

of the characteristics of 21st century abilities that are demanded globally. Curriculum as the first variable, entrepreneurial characteristics as the second variable, and ASIIN which is an international accreditation institution in this section as a supporting variable.



**Figure 2.** Research framework

The curriculum is a framework for upholding an education that should not be weak. Seeing the importance of entrepreneurial characteristics as part of the demands of 21st century abilities, ideally the educational curriculum should be strengthened by inculcating entrepreneurial characteristics through various posts in the implementation of the curriculum. Of course, this planting must be given an ideal portion in accordance with environmental conditions and the state of education. So improving the quality of education through accreditation must refer to the application of the concept of entrepreneurial characteristics as an important part, especially in the curriculum used

**2. RESEARCH METHOD**

This qualitative research combines observation and documentation in data collection. The research data was taken based on the ASIIN accreditation preparation document that is being carried out by the Building Engineering Vocational Education study program [16], Faculty of Engineering, Universitas Negeri Padang 2021, including the SAR document along with attachments and the website for the Building Engineering Vocational Education study program.



**Figure 3.** Research flow

This research is divided into four stages, namely 1) conducting a literature study and determining research variables based on problems relevant to the urgency of the study, 2) collecting data by conducting observations and documentation by digging up related information according to the direction of the problem, 3) data that has been collected. then analyzed through comparisons between reality and ideal conditions, and associated with applicable regulations, and 4) carry out the stages of drawing conclusions.

**3. RESULT AND DISSCUSSION**

**3.1. Result**

After collecting data through observation and documentation, the following results were obtained:

**3.1.1. Vision of study program**

The vision of the BEVE study program is "to become a study program that produces prospective educators and professionals who are devoted to God Almighty and excel in the field of BEVE".

### 3.1.2. View by research indicators

**Table 3.** Research Indicators

Indicators	BEVE study program in the assessment of entrepreneurial characteristics
Vission	The vision of this study program does not include directions related to the characteristics of entrepreneurship as a characteristic of the demands of the 21st century that must be possessed by graduates
Mission	The mission of the study program also has not explained the existence of efforts to create graduates who have entrepreneurial characteristics
Goals	The purpose of the study program also does not define the existence of a goal to create graduates who have entrepreneurial characteristics.
Graduate profile	There is a section related to entrepreneurship, namely the social skills section, where it is written that graduates have an entrepreneurial spirit
Method	There are variations in the use of learning models for courses such as project-based learning models to increase creativity, critical thinking, team work, and student analysis. Besides that, product-based learning is also carried out, field practice to industry, teaching practice to vocational schools, and real work lectures
competence	Have integrity, be religious, nationalist, communicate effectively and have an entrepreneurial spirit (Social skills)
Program learning outcomes (PLO)	This study program has 6 PLO points, one of which is on the sixth point, namely having social and managerial competence, working together, communicating effectively, having entrepreneurial character, having environmental insight and being aware of the importance of lifelong learning (Transferable and soft skills).
CU	Of the total 144 credits of this study program, the time composition for entrepreneurship courses is only 3 credits, and that is only in the form of theoretical lectures. This means that entrepreneurship learning seen from the total minimum number of credits to pass this program is only 2.08%..

### 3.2. Discussion

The vision of BEVE is to become a study program that produces prospective educators and professionals who are devoted to God Almighty and excel in the field of BEVE. From this vision, the element of entrepreneurship has not been found in the form of narrative or meaning. As a derivative of the vision, there are missions and objectives of the study program which do not at all include entrepreneurship as an effort to achieve its characteristics. This shows that there has been no effort to make entrepreneurial characteristics an important part of the study program, so it is necessary to study changes or additions to the vision of this study program, especially related to entrepreneurship.

In contrast to the vision, mission and goals, it can be seen in the competencies of the BEVE program, namely having integrity, being religious, nationalist, communicating effectively and having an entrepreneurial spirit (Social skills). Likewise, the profile of graduates of the BEVE program stated that graduates have social skills, namely having an entrepreneurial spirit. This shows that there is no synchronization between the vision, mission, goals, with the competencies and profiles of graduates of the study program (in terms of

textual narrative). This of course should be a concern for future program improvements. Judging from the PLO, the BEVE program has 6 PLOs, one of which in point 6 states that they have social and managerial competence, work together, communicate effectively, have entrepreneurial characteristics, are environmentally friendly and are aware of the importance of lifelong learning (Transferable and soft skills). Narratively, the intention of having entrepreneurial character in the PLO has led to the cultivation of entrepreneurial characteristics, but this PLO has not been in line with the vision, mission, and objectives of the study program. In addition, when viewed from the credit point of view, the BEVE program only includes 3 UC of entrepreneurship out of a total of 144 UC, and that is only in the form of learning theory without practice. This value is very small, which is only 2.08%, and is very far from representing the efforts to make graduates with entrepreneurial characteristics. However, there is one thing that is quite helpful, namely the existence of lecturers' initiatives in varying the use of learning models for certain subjects such as project-based learning models. [17] and product based learning [18] for practical activities. There are also lecturers who use problem-based learning models to improve creativity, critical thinking, team work, and student analysis. Besides that, product-based learning is

also carried out, field practice to industry, teaching practice to vocational schools, and real work lectures. In addition, the results of this study are still limited to ASIIN SAR documents and study program websites such as aspects ranging from vision, mission, goals, graduate profiles, methods, program learning outcomes, and composition of credits in study program subjects. While there are still other aspects that need to be explored such as the quality and qualifications of teachers, assessment, implementation of learning, learning models, to management related to increasing entrepreneurial characteristics that will be possessed by students.

Research on entrepreneurship in the vocational education curriculum is very important because it can map the extent of teaching entrepreneurship in vocational education programs. This is also in line with the research of Jónsdóttir [19] who stated that an analysis of entrepreneurship in education can be used as a valuable tool for education providers, teachers, and policy makers involved in encouraging the application of entrepreneurial characteristics to vocational education. Especially if it is associated with the importance of entrepreneurial characteristics to be possessed by graduates of educational institutions, especially vocational education. And besides that, globally, entrepreneurial characteristics are also a major part of the 21st Century Skills Framework.

#### 4. CONCLUSION

Entrepreneurial characteristics have become a very important character and must be possessed by graduates of modern education, but after conducting research on the vocational education curriculum, it can be concluded that this study program has not made entrepreneurial characteristics an important part of its graduates, there has been no attempt to achieve entrepreneurial characteristics legally formally in vision, mission, and objectives of the study program. On the other hand, the graduate profile of this program lists graduates who have entrepreneurial abilities, but the composition of the credits of this program for entrepreneurship learning is very small, only 3 out of 144 or only 2.08%, and that is only theory without practice. Of course, this is far from the expectation of creating graduates who have entrepreneurial characteristics as the demands of the 21st century. Although there have been several implementations of learning that provide opportunities for students to develop creativity and

carry out learning in groups to increase activity, think critically, and direct students to work on tasks based on product. Therefore, it is necessary to develop research related to this matter so that entrepreneurial values can be considered in this study program. In addition, there is a need for research on the application of learning models and their development.

#### AUTHORS' CONTRIBUTIONS

The first author is the main contributor while the other authors are member contributions.

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