International Journal of Engineering & Technology, 7 (3.25) (2018) 245-249

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper

Entrepreneurship Curriculum Development in Senior High School

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Abstract

Entrepreneurship-based education is education that applies principles and methodology to the internalization of values in learners through a curriculum integrated with the development that occurs both in the school environment and community environment and the use of learning models and strategies relevant to the purpose of learning itself. The values developed in entrepreneurship education are the development of entrepreneurial values and competencies that reflect a successful entrepreneur.

The entrepreneurial competencies to be built through the entrepreneurship curriculum at high school include a group of knowledge, attitudes, and skills acquired and used by individuals simultaneously, to produce outstanding performance in the field of entrepreneurship. Entrepreneurial knowledge is knowledge structure that an entrepreneur uses to make judgments or take decisions involving opportunity evaluation, business creation and growth. Knowledge is the scope of the cognitive domain of competence skills that students must possess. An entrepreneur must have business-related skills. Some of the skills that need to be possessed include conceptual skills in managing strategies and taking into account risks, creative skills in creating added value, skills in leading and managing, communication and interaction skills, and technical skills in the field of business undertaken. Entrepreneurship education when done intensively can shape the mindset, skills and attitudes / behavior of high school students.

This research showed that simultaneously the variables of knowledge, skill, and attitude have positive and significant influence to Entrepreneurial competence in entrepreneurship curriculum at high school. Furthermore, the test results partially indicate that each variable of knowledge, skill, and attitude have positive and significant influence to Entrepreneurial competence in entrepreneurship curriculum at high school.

Keywords: *entrepreneurship curriculum; entrepreneurial competence; entrepreneurship education*

1. Introduction

Entrepreneurial competence development in formal education, especially in high school education in Indonesia is still not getting enough attention, this is because high school education aims to prepare students to continue to the level of Higher Education, whereas at the moment there are still many high school graduates who do not continue school to college level. Data from the Ministry of Education and Culture stated that the number of 3rd graders attending the national exam in 2015 reached 1,661,832 people, while in 2016 their number is estimated to increase to 1,691,514 people. From that figure, the gross educational participation is estimated at about 30%, so the total of new students in 2016 is about 507,000 people. In the end, high school graduates are the largest number of unemployed.

In line with the policy of the Ministry of Education and Culture of Indonesia which has prepared the concept of entrepreneurship based curriculum for all levels of education, entrepreneurship education, especially in high school education undergoing transformation. Based on the national standard of education that became the reference of curriculum development entrepreneurship education is also included in the material that must be taught and mastered and realized by the students in everyday life. The problem is, not all high school realize the entrepreneurship education. Even if there is a high school that has realized a new touch on the level of recognition of norms or values, and not at the level of internalization and real action in everyday life.

[1] say that the functions of education is to improve the economic productivity of human. One alternative to developing entrepreneurship education is through integrated character education, which is to integrate and optimize the informal education activities of the family environment with formal education in schools. In this case, the learning time of the students in the school needs to be optimized in order to improve the quality of learning outcomes, especially the formation of characters, including the entrepreneurial character of the learner according to the educational objectives can be achieved. Extracurricular activities that have been held by schools is one of the potential media for character development including the character of entrepreneurship and the improvement of academic quality of learners.

Entrepreneurship-based education is education that applies principles and methodology to the internalization of values in learners through a curriculum integrated with the development that occurs both in the school environment and community environment and the use of learning models and strategies relevant to the purpose of learning itself . The educational institution should not only give birth to the number of graduates, but much more important is how

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much the graduation can help itself in facing the challenge in the community or in other words the school must improve the life skills of its graduates.

The values developed in entrepreneurship education are the development of entrepreneurial values and competencies that reflect a successful entrepreneur. A successful entrepreneur in general is those who have the competence of having the knowledge, skills, and individual qualities that include; attitudes, motivations, personal values, and behaviors necessary to carry out work or activities.

Further explained that, knowledge alone is not enough for the entrepreneur, but also must be accompanied by skills such as; managerial skills, conceptual skills, skills to understand, understand, communicate and relate, the skills to formulate problems and how to act, the skills to manage and use the time, and other technical skills specifically. Explained also that, having only knowledge and skills is not enough, for that an entrepreneur must also have the attitude, motivation, and commitment to the work that is facing him.

Based on some of the above views, then the study of curriculum development of entrepreneurship education in order to build entrepreneurial competence of high school students is very interesting to be examined. The purpose of this study is to determine the factors that build entrepreneurial competence in high school curriculum.

2. Literature Review

Mastery of entrepreneurial competence for high school students has a very strategic meaning in the effort to build entrepreneurial ecosystems in Indonesia. [2] says that an entrepreneur is a person who has a high creativity and innovative spirit in his life, dare to face risks and uncertainties so as to create new business and to achieve profit and growth by identifying opportunities and using the resources needed to utilize such opportunities. Entrepreneurship arises when an individual dares to develop his new business and ideas. Entrepreneurship includes creativity, innovation and risk-taking, as well as the ability to plan and manage a business to achieve its goals [3].

The Law of the Republic Indonesia Number 20 Year 2003 on the National Education System states that education is a conscious and planned effort to create an atmosphere of learning and learning process so that learners actively develop their potential to have spiritual power of religion, self-control, personality, intelligence, noble, as well as the skills that he needs, society, nation, and country. In addition, entrepreneurship education also tries to create and maintain a learning environment with entrepreneurial traits and behaviors, such as being creative and independent thinkers, risk takers, assuming responsibility, and appreciating diversity [4].

Education enables individuals to be inspired and given opportunity to get out of poverty by being given the necessary skills and knowledge [5]. Entrepreneurship education as a shaping mindset, attitudes and entrepreneurial skills that make individuals responsible for economic conditions and can identify opportunities [6].

Strengthening entrepreneurial competence in high school students should be designed to be integrated with the curriculum of education in senior secondary schools. [7] define competence as a group of knowledge, attitudes, and skills acquired and used individually simultaneously, to produce exceptional performance in a particular field. Conducting entrepreneurial activities in schools means integrating the personalities, opportunities, finances, and resources that exist in the school environment to take advantage.

Entrepreneurial knowledge has a very important role in entrepreneurial activities. Entrepreneurial knowledge is defined as the knowledge structure that an entrepreneur uses to make judgments or take decisions involving opportunity evaluation, business creation and growth. Knowledge is the scope of the cognitive domain of competence skills that students must possess. Individual cognitive capacity also influences factors that shape entrepreneurial intentions. In addition to its impact on entrepreneurial intent and learning, entrepreneurial cognition has a significant relationship with motivation, ability, and effort to explore business opportunities, mobilize necessary resources, manage and improve business performance (Pihie et al., 2013).

[7] emphasize four critical areas of entrepreneurial competence: 1) Financial management-record keeping, cash management, savings to accumulate capital managing accounts payable and accounts receivables, etc. 2) Capacity management-staffing decisions and training issues, having the right type and size of facilities, and effective capacity planning to meet capacity demand. 3) Supply chain management-Managing supplier relations, inventory management, logistics management, etc. 4) Quality management-the extent of the firm understands the significance of quality for efficiency, customer retention and growth, and the extent to which management practices focus on quality and customer satisfaction.

Besides knowledge, an entrepreneur must have business-related skills. Some of the skills that need to be possessed include conceptual skills in managing strategies and taking into account risks, creative skills in creating added value, skills in leading and managing, communication and interaction skills, and technical skills in the field of business undertaken. [8] emphasizes three concepts: non-cognitive entrepreneurial skills, entrepreneurial knowledge, and the intention to become entrepreneurs. There are nine non-cognitive entrepreneurial skills that are risk taking, creativity, need for achievement, self-efficacy, social orientation, proactivity, persistence, ability to analyze, and motivation. Meanwhile, according to [7] Entrepreneurship skill includes the ability to manage the-individual and ability to manage time-effectively and to learn new techniques in handling business operations; and ability to adopt change and to handle changes in environment. Basic Management Skill includes 1) Technical Skill, which is the skill required to perform special tasks, such as secretary, accountant-auditor, and drawing expert. 2) Human Relations Skill, namely skills to understand, understand, communicate, and relate to others in the organization. 3) Conceptual Skill, which is the personal ability to think abstractly, to diagnose and to analyze different situations, and to see outside situations. 4) Decision Making Skill, which is the skill to formulate the problem and choose the best way to act to solve the problem. 5) Time Management Skill, namely skills in using and managing time as productively as possible.

Entrepreneurship education when done intensively can shape the mindset, skills and attitudes / behavior of high school students. [9] states that attitude is an evaluative statement both pleasant and unpleasant to objects, individuals, or events. Attitude is composed of three components, namely 1) Cognitive component, namely the opinion segment or belief of the attitude. 2) Affective component, namely emotional segment or feelings of attitude. 3) Behavioral component of an attitude, namely an intention to behave in a certain way towards someone or something.

Furthermore [3] states that Entrepreneurship education has an obligation to assemble awareness of entrepreneurship as a career choice. Entrepreneurship education inspires students to equip themselves with the knowledge, skills, and experience necessary to achieve successful business. Students involved in the booking entrepreneurship program have a higher degree to start their own business.

3. Methodology

In an effort to get a clear and detailed picture of the factors that build entrepreneurial competence of high school students,

researchers use a quantitative approach, namely a process of finding knowledge using numerical data as a tool to analyze information about what you want to know. Quantitative approach in this research is supported by the use of descriptive analysis. Descriptive analysis techniques used to provide information about the observed data by describing the data that has been collected as it is and without intending to draw generalized conclusions on the population. In weighting relating to factors that build entrepreneurial competence used ranking method. Essentially every indicator of the factors of entrepreneurial competence will be arranged by ranking. While to know the amount of influence between variables, used Multiple Regression Analysis with the formula:

$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + Ɛ$

Y = Entrepreneurial competence
X1 = Knowledge
X2 = Skills
X3 = Attitude
Ɛ = Error
b0 = Constants
b1,b2,b3 = The regression coefficient to be estimated

To know the significance of independent variables to the dependent variable simultaneously used F test. Furthermore, to know the significance of the influence of independent variables to the dependent variable partially using the T test.

The population in this study are high school teachers in Bandung. The sampling technique used is random sampling technique. The number of samples in this study were 150 teachers. Data collection techniques in this study using interview techniques, litelatur studies and questionnaires.

4. Results and Findings

The integration of entrepreneurship values into high school curriculum is in line with the concept of Curriculum developed by the Ministry of Education and Culture of the Republic Indonesia which emphasizes the competence to be able to perform various tasks with certain performance standards, so that the result is the mastery of a certain set of competencies, as a combination of knowledge, skills, values of attitudes and interests as a result of learning that reflection is in the form of thinking habits and acting economically when faced with problems. This is also supported by the opinion of [7] which states that competence as a group of knowledge, attitudes, and skills acquired and used individually simultaneously, to produce outstanding performance in a particular field.

To illustrate the factors that build entrepreneurial competencies that include developing knowledge, skills and entrepreneurial attitudes, this research develops indicators as shown in the following table 1:

Table 1 Entrepreneurial Competence Factors

Knowledge	Skills	Attitude
Market knowledge Human resources knowledge Business environment knowledge Production knowledge Financial knowledge	Business planning Leadership skills Decision-making skills Time management Skills Financial management skills Relationship skills Conceptual skills Tecnical skills	Confidence Discipline Creative Honest Independence Innovative Responsible Leadership Risk taking Reliable Work ethic Original Task-oriented Future Oriented Social Oriented

Based on the results of research conducted through questionnaires distributed to 150 high school teachers, the following results are obtained:

4.1. Knowledge

Knowledge is the scope of the cognitive domain of competence skills that must be mastered by high school students (Pihie et al., 2013). In the entrepreneurship curriculum at high school, The learning competence of the cognitive domain includes the ability to restate the learned concepts or principles and the intellectual abilities of human resources knowledge, business environment knowledge, market knowledge, knowledge production and financial knowledge [10].

Based on the result of the research shows that the teachers stated that the interest of market knowledge was ranked first with the weight of 24.59%, then sequentially occupied the mastery of Human Resources knowledge with weight of 21.19%, Business environment knowledge with weight of 19.36%, Production knowledge with weight of 18.13 % and Financial knowledge with weight of 16.73%.

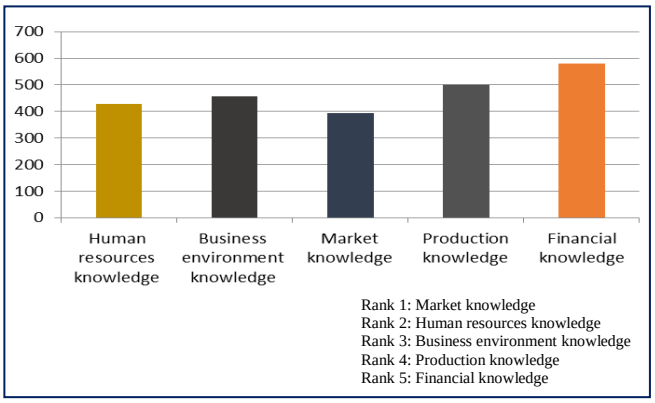


Figure 1:. Knowledge Indicators Ranking

4.2. Skills

Entrepreneurship education is not just theory, the nature of entrepreneurship education is the creation of students who have an entrepreneurial spirit, entrepreneurial knowledge, and entrepreneurial skills. To achieve these objectives, curriculum design should also include the development of entrepreneurial skills [8]. Competence learning affective areas, including key skills and entrepreneurial support. In the entrepreneurship curriculum at high school In this study, the main entrepreneurial skills that measured their importance were business planning, leadership skills, decision-making skills, time management skills and financial management skills [7]. While the supporting entrepreneurial skills in this research include relationship skills, conceptual skills and technical skills.

Based on the results of research shows that the teachers stated the interest of business planning skill was ranked first with the weight of 23.38%, followed by Leadership skills with 22.96% weight, Decision-making skills with weight of 20.58%, Time Management Skills with weight of 19.18 % and Financial management skills with weight of 13.90%.

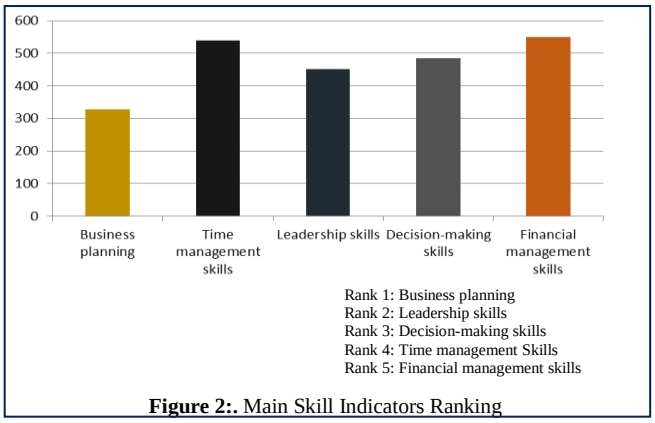


Figure 2:. Main Skill Indicators Ranking

While relation with entrepreneurship skill support, based on result of research show that teachers expressed interest of Relationship skills skill rank first with weight equal to 35.36%, subsequently sequentially occupied Conceptual Skills with weight of 34.94%, and Technical skills with weight of 29.70%.

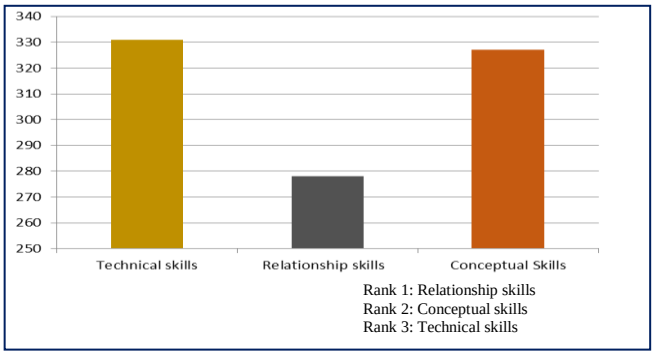


Figure 3:. Supporting Skill Indicators Ranking

4.3. Attitude

National education standards that become the guidance of developing the curriculum of entrepreneurship education at senior high school should include materials and activities that can build entrepreneurial attitude that can be realized by students in everyday life. [7] stated that in the entrepreneurship curriculum at high school, The entrepreneurial attitudes measured in this research are confidence, discipline, creative, honest, independence, innovative, responsible, leadership, risk taking, reliable, work ethic, original, task-oriented, future oriented and social oriented.

Based on the results of research shows that the teachers declared the importance of confidence ranked first with a weight of 10.92%, then other important attitudes that are considered important are Discipline, Creative, Honest, Independence, Innovative, Responsible and Leadership with weight range of 9.91% - 7.20%. while other supporting attitudes that are considered important are Risk taking, Reliable, Work ethic, Original, Task-oriented, Future Oriented, Social Oriented with weight range of 4.94% - 2.20%.

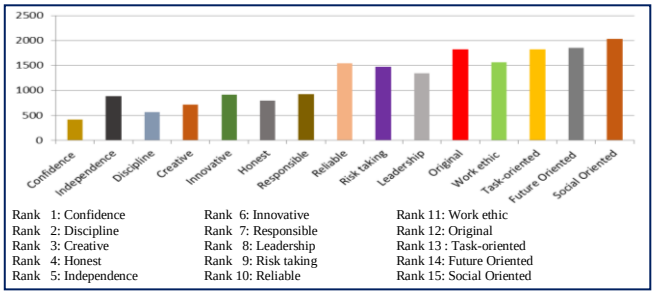


Figure 4:. Attitude Indicators Ranking

4.4. The Influence of Knowledge, Skills and Attitude

According to [7], entrepreneurial competence can be shaped by the knowledge, attitudes, and skills acquired and used by entrepreneurs to produce outstanding performance in business. To know the effect of simultaneous knowledge, skills and attitude toward entrepreneurial competence In the entrepreneurship curriculum at high school, used F test. While T test is used to know the influence of knowledge, skills and attitude partially to entrepreneurial competence.

Simultaneous or simultaneous test results indicate that in the entrepreneurship curriculum at high school, the variables of knowledge, skills, and attitudes together have a positive and significant impact on the competence. The test results simultaneously (F test) from this research can be seen in the following table 2:

Table 2 ANOVAb

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2167,729	3	722,576	68,043	000[a]
	Residual	1550,431	146	10,619		
	Total	3718,160	149			

Predictors: (Constant), Knowledge, Skills and Attitude
Dependent Variable: Entrepreneurial competence

From the test results obtained F calculated value of 68,043 with a significance of 0.000. Therefore the value of significance is less than 0.05 (0.000). This means in the entrepreneurship curriculum at high school, simultaneously knowledge, skills and attitude variables have a positive and significant impact on entrepreneurial competence.

Furthermore the coefficient of determination (R^2) is used to explain how much influence of all independent variables to the dependent variable. Acquisition of coefficient of determination can be seen in table 3 below:

Table 3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.885a	.782	.776	.33054

a. Predictors: (Constant), Knowledge, Skills and Attitude
b. Dependent Variable: Entrepreneurial competence

Based on the results of testing determination in Table 3 can be explained that the magnitude of the coefficient of determination (R^2) is 0.782. This means in the entrepreneurship curriculum at high school, that as many as 78.2% of knowledge, skills and attitude variables affect the dependent variable of entrepreneurial competence, while the remaining 21.8% is influenced by other variables not included in this research.

Partial test used T test to see the influence of knowledge, skills and attitude variables partially to entrepreneurial competence in the entrepreneurship curriculum at high school. Test results partially can be seen from the t-count value. The partial test results (t-count) can be seen in table 4 below:

Table 4 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.278	.323		.672	.886
	Knowledge	.158	.141	.082	1.120	005
	Skills	.348	.098	339	3.537	.001
	Attitude	.518	.086	.519	6.041	.000

a. Dependent Variable: Entrepreneurial competence

Based on the calculation result in Table 4, we get multiple linear regression equation for this research, that is

EC = 0,278 + 0,348K + 0,158S + 0,518A + ei.

Constants (0.278) are the value of the Entrepreneurial Competence (dependent) variable if all Knowledge, Skills and Attitude (independent) variables are fixed. A positive value constant indicates that if the independent variable Knowledge, Skills and Attitude, is constant or constant, the variation in the change in Entrepreneurial competence tended to be positive. Coefficient for Knowledge (0.158) is positive, it means Knowledge gives positive influence to Entrepreneurial competence in the entrepreneurship curriculum at high school. The coefficient for Skills variable (0.348) is positive, it means Skills gives positive influence to Entrepreneurial competence in the entrepreneurship curriculum at high school. Coefficient for Attitude variable (0,518) is positive, it means Attitude gives positive influence to Entrepreneurial competence in the entrepreneurship curriculum at high school.

In accordance with [11] opinion, entrepreneurship education has an important role for individuals in the process of learning entrepreneurial knowledge and skills and directing their motivation, beliefs, and behaviors to transform their entrepreneurial intentions into a real new business. The results showed that simultaneously variable knowledge, skill, and attitude have positive and significant influence to entrepreneurial competence in the entrepreneurship curriculum at high school. Furthermore, the test results partially indicate that each variable of knowledge, skill, and attitude have positive and significant influence to entrepreneurial competence in the entrepreneurship curriculum at high school.

5. Conclusion

Strengthening entrepreneurial competence in high school students should be designed to be integrated with the curriculum of education in senior secondary schools. The entrepreneurial competencies to be built through the entrepreneurship curriculum at high school include a group of knowledge, attitudes, and skills acquired and used by individuals simultaneously, to produce outstanding performance in the field of entrepreneurship.

Based on the results of research on the variable knowledge in the entrepreneurship curriculum at senior high school, showed that the teachers expressed the interests of market knowledge occupied the first rank with weight of 24.59%, then sequentially occupied mastery of human resources knowledge with weight of 21.19%, Business environment knowledge with weight of 19.36%, Production knowledge with weight of 18.13% and Financial knowledge with weight of 16.73%.

Based on the results of research on the variable skills in the entrepreneurship curriculum at senior high school shows that the teachers stated the interest of Business Planning skills was ranked first with the weight of 23.38%, then sequentially occupied Leadership skills with weight of 22.96%, Decision-making skills with weight of 20.58%, Time Management Skills with weight of 19.18% and Financial management skills with weight of 13.90%. While relation with entrepreneurship skill support, based on result of research show that teachers expressed interest of Relationship skills skill rank first with weight equal to 35.36%, subsequently sequentially occupied Conceptual Skills with weight of 34.94%, and Technical skills with weight of 29.70%.

Based on the results of research on attitude variables in the entrepreneurship curriculum at senior high school, showed that the teachers declared the importance of Confidence ranked first with a weight of 10.92%, then other important attitudes considered important are Discipline, Creative, Honest, Independence, Innovative, Responsible and Leadership with weight range of 9.91% - 7.20%. while other supporting attitudes that are considered important are Risk taking, Reliable, Work ethic, Original, Task-oriented, Future Oriented, Social Oriented with weight range of 4.94% - 2.20%.
The results showed that simultaneously the variables of knowledge, skill, and attitude have positive and significant influence to Entrepreneurial competence in entrepreneurship curriculum at high school. Furthermore, the test results partially indicate that each variable of knowledge, skill, and attitude have positive and significant influence to Entrepreneurial competence in entrepreneurship curriculum at high school.

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