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## **21st Century Skills-Based Learning Donations Against the Entrepreneurial Spirit of Vocational High School Teachers in Tapung Hulu Subdistrict, Kampar**

**Said Suhil Achmad & Daeng Ayub**

Lecturer at Community Education Study Program, Departement of Educational Science,  
Faculty of Teacher Training and Education, Riau University  
Email: [saidzuhil@lecturer.unri.ac.id](mailto:saidzuhil@lecturer.unri.ac.id)/[daengayubnatuna@gmail.com](mailto:daengayubnatuna@gmail.com)

**Abstract** The teacher's entrepreneurial spirit is a combination of creativity, innovation, and the courage to face risks that are done with hard work to shape and maintain school progress. The teacher entrepreneurship spirit can be enhanced by conducting 21st century skill-based learning. The purpose of this study is to describe and analyze the level of teacher entrepreneurship spirit and 21st century skill-based learning, and the relationship and contribution of 21st Century skill-based learning to teacher entrepreneurship spirit. The study was conducted at the Vocational High School of Tapung Hulu District, Kampar Regency. This descriptive quantitative study was conducted by survey. The total population of 75 teachers and a sample of research determined by 64 teachers. Data were collected by questionnaire and analyzed using descriptive statistics and inferential statistics. The results of this study found that the level of entrepreneurial spirit of teachers was high with a mean of 4.28, while 21st Century skills-based learning was also high with a mean of 4.32. The relationship of 21st Century skill-based learning with the entrepreneurial spirit of teachers was gained by 0.648 with the contribution of variable X to Variable Y by 42.00 percent (moderate). The results and findings of this study mean that the better 21st Century skill-based learning will be, the better the entrepreneurial spirit of the teacher.

**Keywords:** learning, skills, entrepreneurship, 21st century, teacher.

### **1. Introduction**

Teachers as the spearhead have a very important role in warding off the adverse effects of globalization, through the learning process it does. A quality learning process will emerge from qualified teachers, so as to produce quality students as well. The demand for teacher professionalism is non-negotiable, if we want to improve the quality of education in this country.

The ownership of the entrepreneurial spirit for the teacher is very important, because the teacher has a strategic role in the process of transforming the culture of entrepreneurship to his students, which in the end the teacher's entrepreneurial spirit will always flow from generation to generation. plus the teacher must be creative and innovative in facing the challenges of the 21st century. 21st century is marked as a century of openness or a century of globalization, meaning that human life experiences fundamental changes that are different from the order of life in the previous century. 21st Century learning is learning that integrates literacy skills, knowledge skills, skills and attitudes, and mastery of technology.

The entrepreneurial spirit is the entire inner life of man which makes man superior to doing business with his own abilities. As Daryanto (2003) states that entrepreneurship and entrepreneurship are active production factors that can move and utilize other resources such as natural resources, capital and technology, so as to create wealth and prosperity through job creation, product income needed by the

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community. Ropke (2004) states that entrepreneurship is the process of creating something new (new creation) and making something different from what already exists (innovation), the goal is the achievement of individual welfare and added value to society.

Teacher entrepreneurship is creativity and innovation as well as courage to face risks carried out by working hard to shape and maintain school progress. Wahyuwulandari (2015) and Kasmir (2006) say that one's entrepreneurial spirit can be measured using indicators, namely: (1) confidence; (2) task and outcome oriented; (3) dare to take risks; (4) future-oriented leadership; and (5) creativity and innovation.

Trilling & Hood (1999) explains that 21st century skills are the changes needed to prepare themselves to be able to live and work in the age of knowledge (knowledge age), especially in the field of education. According to Tilaar (1998) 21st century education is a new challenge that demands a breakthrough thinking process if what is desired is quality output that can compete with work in a completely open world.

21st Century skills are education that integrates knowledge skills, skills, and attitudes as well as mastery of information and communication technology. Zuhri (2017) said that 21st century skill-based education and learning using the term 4C can be measured by indicators: (1) Creativity and Innovation, (2) Critical Thinking and Problem Solving, (3) Communication, and (4) Collaborative.

## **2. Methodology**

The purpose of this study is to describe and analyze the level of 21st Century skill-based learning and the entrepreneurial spirit of teachers. Besides describing and analyzing the relationship and contribution of 21st Century skills-based learning of teachers to the entrepreneurial spirit of teachers in the Vocational High School, Tapung Hulu District, Kampar Regency.

This quantitative descriptive study was conducted with a survey consisting of two main variables. The population was 75 teachers and the study sample was 64 people based on an error rate of 5 percent. The instrument test was conducted on 20 Vocational High School teachers who were not the study population in the same area. Data were collected using a questionnaire and data were analyzed using descriptive statistics to find levels of learning based on 21st Century skills and entrepreneurial spirit of entrepreneurship by looking for average scores and inferential statistics to find relationships and the magnitude of contributions between variables.

The teacher entrepreneurship spirit intended in this study is the teacher's perception of her entrepreneurial spirit which includes self-confidence, task and outcome oriented, risk-taking, future-oriented leadership, and creativity and innovation. Meanwhile, 21st Century skills-based learning is meant by teachers' views on the integration of knowledge, skills, and attitudes as well as mastery of information and communication technology when doing learning, which includes Creativity and Innovation, Critical Thinking and Problem Solving, Communication, and Collaborative.

## **3. Result and Discussion**

### **3.1. Analisis Statistik Deskriptif.**

The results of the descriptive data analysis of the Teacher Entrepreneurial Soul Variable are as in the following table

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**Table 1:** Mean Values and Standard Deviations of Teacher Entrepreneurial Soul Variables (Y) Based on each indicator

No	Indikator	Mean	SD	Tafsiran
1	Percaya diri	4.07	0.64	Tinggi
2	Berorientasi tugas dan hasil	4.28	0.61	Tinggi
3	Berani mengambil resiko	4.23	0.66	Tinggi
4	Kepemimpinan yang berorientasi ke masa depan	4.42	0.56	Tinggi
5	Kreativitas dan inovasi	4.42	0.56	Tinggi
<b>Rata-Rata</b>		<b>4.28</b>	<b>0.61</b>	<b>Tinggi</b>

Table 1 above explains that the mean value (mean indicator value) for the entrepreneurial soul variable Y is 4.28 and SD is 0.61. This shows that the entrepreneurial spirit of teachers in the Tapung Hulu Kampar Vocational School based on each indicator is already high. However, there still needs to be an increase in the lowest indicator, namely confidence, the mean 4.07 and the standard deviation of 0.64.

The results of descriptive data analysis of the 21st Century skills-based learning variables are as in the following table:

**Table 2:** Mean Values and Deviation Standards of Skill Based Learning Variables 21st Century Based on Each Indicator

No	Indikator	Mean	SD	Tafsiran
1	<i>Creativity and Innovation</i>	4.33	0.57	Tinggi
2	<i>Critical Thinking and Problem Solving</i>	4.34	0.58	Tinggi
3	<i>Communication</i>	4.35	0.57	Tinggi
4	<i>Collaborative</i>	4.27	0.59	Tinggi
<b>Rata-Rata</b>		<b>4.32</b>	<b>0.58</b>	<b>Tinggi</b>

Table 2 above explains that the mean value based on indicators for 21st century skill-based learning variables is 4.32 and SD 0.58. This shows that 21st century skills-based learning of teachers in the Vocational High School of Tapung Hulu District, Kabuapten Kampar based on each indicator is already high. However, it still needs an increase in the lowest indicator, namely Collaborative which is a mean of 4.27 and a Standard Deviation of 0.59.

### 3.2. Analisis Statistik Inferensial.

The results of data analysis using inferential statistics can be explained as follows:

**Table 3:** Pearson Correlation Test between 21st Century (X) skill-based learning towards the entrepreneurial spirit (Y)

Variabel	n	Korelasi Pearson	Sig (2-tailed)
X <sub>1</sub> -Y	64	0,648**	0,000

\*\* , Correlation is significant at the 0,01 level (2-tailed)

Based on Table 3 about the Pearson correlation test between 21st century skill-based learning (X) on the entrepreneurial spirit of the teacher (Y), the Pearson correlation of 0.648 obtained shows that there is a significant relationship between 21st century skill-based learning (X) on the entrepreneurial spirit teacher (Y). The correlation between 21st century skill-based learning (X) and the entrepreneurial spirit of the teacher (Y) is quite strong in interpretation, this is shown by the correlation value is very

far from the number 1.0. With P value / Sig equal to 0.000 < 0.05. so it can be concluded that there is a significant relationship between the two variables.

Based on Table 4 about the t-test of the 21st century skills-based learning variable on the entrepreneurial spirit of the teacher, that a value of a = 1,178 and b = 0,712 is obtained so that the regression equation becomes  $Y = 1,178 + 0.712$  so that the regression equation can be interpreted that the relationship between the two variables is significant and linear. This means that every 1 unit increase in the 21st century skill variable will be followed by an increase in the entrepreneurial spirit of 1,178 units.

**Tabel 4:** T test Calculate the coefficient of the 21st century skill variable (X) against entrepreneurial spirit (Y)

Model	B	t <sub>hitung</sub>	t <sub>tabel</sub>
(Konstan)	1.178	2.555	1,6762
keterampilan abad 21	.712	6.695	

a. *Dependent Variabel: jiwa kewirausahaan Y*

From Table 4, the coefficient obtained t test value (t-count) of 6.695 while the value of t table 1.6762 or it can be said the value of t-count > t-table, this means that Ho is rejected and Ha is accepted so there is a significant contribution between the learning contribution variables based 21st century skills on the entrepreneurial spirit of vocational teachers in Tapung Hulu Kampar District. That is, the hypothesis that reads the contribution of 21st century skill-based learning to the entrepreneurial spirit of vocational teachers in Tapung Hulu Kampar District was accepted. Based on Table 4 about the t test of the 21st century skills variable on the entrepreneurial spirit of the teacher, that the value of a = 1.178 and b = 0.712 is obtained so that the regression equation becomes  $Y = 1.178 + 0.712$  so that the regression equation can be interpreted that the relationship between the two variables is significant and linear . This means that every 1 unit increase in the 21st century skill variable will be followed by an increase in the entrepreneurial spirit of the teacher by 1,178 units.

**Tabel 5:** T test Calculate the coefficient of learning skills based on 21st century (X) towards psychological entrepreneurship (Y)

Model	B	t <sub>hitung</sub>	t <sub>tabel</sub>
(Konstan)	1.178	2.555	1,6762
keterampilan abad 21	.712	6.695	

b. *Dependent Variabel: jiwa kewirausahaan Y*

From table 5 the coefficient obtained t test value (tcount) of 6.695 while the ttable value 1.6762 or it can be said tcount > ttable, this means Ho is rejected and Ha is accepted so there is a significant contribution between the variable contribution of 21st century skill-based learning towards the entrepreneurial spirit Vocational High School teacher in Tapung Hulu Kampar District. That is, the hypothesis that reads the contribution of 21st century skill-based learning to the entrepreneurial spirit of Vocational High School teachers in Tapung Hulu Kampar Subdistrict is accepted. For this matter can be explained in the following table.

**Tabel 6:** Contribution of 21st century skill-based learning variables (X) to the entrepreneurship spirit (Y)

R	R Square	Sig, F Change	Sumbangan (%)	Tafsiran
0,648 <sup>a</sup>	0,420	0,000	42,00	Sedang

a. Predictors: (Constant): X1 keterampilan abad 21

b, Dependent Variable: Y jiwa kewirausahaan

Table 6 above explains the contribution of 21st century skills-based learning variables to the entrepreneurial spirit of teachers. It can be seen that the Pearson Product Moment correlation between the 21st century skills-based learning variables to the entrepreneurial spirit of Vocational High School teachers in Tapung Hulu Kampar Subdistrict is 0.648. , then obtained R Square ( $r^2$ ) = 0.420 or 42.00%, meaning that the contribution of 21st century skill-based learning to the entrepreneurial spirit of vocational teachers in Tapung Hulu Kampar District is 42.00%, while the remaining 58.00% is determined by other factors did not become part of this study. It can be concluded, that the contribution of 21st century skill-based learning variables to the entrepreneurial spirit of the teacher is of moderate interpretation or the contribution is classified as moderate.

As the results of this study have a significant relationship between learning variables based on 21st century skills (X), the entrepreneurial spirit of teachers (Y) in Tapung Hulu Kampar District with a large contribution of 42.00% with moderate interpretation because there is still 58.00% determined by other factors that were not part of this study. This contribution is illustrated by each increase in one unit of variable will be followed by an increase in 21st century skill-based learning (X) to the entrepreneurial spirit of the teacher (Y) 1, 178 one unit. The findings of this study are strengthened by research conducted by Anna Dyan Rosita Dewi (2007). Research shows that there is no relationship between socioeconomic status and student entrepreneurial spirit, this is evidenced by the correlation coefficient of -0.028 with a significant value of 0.791 greater than significant level of 0.05. Maria Gampang Sri Murdani's research results (2012) show that: (1) there is a positive and significant relationship between entrepreneurial spirit and entrepreneurial interest in terms of the type of parent's work ( $t_{count} = 11.423 > t_{table} = 1.66$ ); (2) there is a positive and significant relationship between the spirit of entrepreneurship with entrepreneurial interest in terms of the level of income of parents ( $t_{count} = 10.354 > t_{table} = 1.65$ ).

Whereas in a study conducted by Ethics Yuni Wijaya (2016), it concluded that the era of globalization had a wide impact in various aspects of life, including demands in the administration of education. One of the real challenges was that education should be able to produce human resources that have complete competence, known as competencies 21st century. 21st Century competence is the main competency that students must have to be able to take part in real life in the 21st century. In the 21st century, it is challenged to be able to create education that can help produce thinkers who are able to help build the social and economic awareness of knowledge as well as like the citizens of the world in the 21st century. Yusuf Rosmansyah (2017) concludes that the development of the B-Learning Framework has been carried out by combining the learning Framework and IT service management Framework. The learning framework used is ADDIE which consists of five stages, namely analysis, design, development, implementation, and evaluation. IT service management framework used is IT-IL which also consists of five stages, namely Service Strategy, Design service, Transitional Service, Service operation, and Continuous service improvement. This framework is to provide extracurricular computer programming services that fit the needs of elementary school students and manage these services so that they last a long time in society. This is a concrete implementation of 21st century learning skills.

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The 21st century is a century that is very different from previous times, a century where science and technology developed very quickly and sophisticated. In addition to its progress, at the same time this century also presents various global challenges and problems such as climate change, global economic crisis, terrorism, globalization, pandemic diseases, and various other problems that must be able to be faced and resolved. According to Mukhadis (2013: 115) 21st century skills are centuries known as knowledge age, in this era, all alternative efforts to meet the needs of life in various contexts are more knowledge based. Efforts to meet the needs in the field of knowledge based economics, development and knowledge based social empowering, and development in the field of knowledge based industry.

This finding is also supported by the mean value of 21st century skill-based learning based on each indicator being interpreted both in the medium category and the mean value of 4.32 and the standard deviation of 0.58. This finding explains that based on the indicators of century-based skill-based learning Tapung Hulu Kampar District is already good with a very high category. This finding is illustrated by (1) self confidence; (2) task and outcome oriented; (3) dare to take risks; (4) future-oriented leadership; and (5) creativity and innovation. While the indicators of entrepreneurial spirit of teachers obtained a mean value of 4.28 and a standard deviation of 0.61 with a high interpretation. In growing the entrepreneurial spirit of the teacher that is in him, there are several factors that are closely related to meeting the teacher. One of the factors that are related is entrepreneurial motivation. Teachers who have entrepreneurial motivation will exhibit superior, innovative and creative behavior. Efforts to meet the needs in the field of knowledge based education (knowledge based economic). Then the closely related factor is the teacher can understand the potential of the entrepreneurial spirit that exists in him. Teachers who are able to understand the potential of the entrepreneurial spirit in themselves and then developed by developing 21st century learning skills creatively, innovatively.

Creativity skills are one of the 21st century skills that are very important in the implementation of learning, especially for teachers who can develop their entrepreneurial spirit, because creativity is an experience of expressing oneself and actualizing individual identities in an integrated form in relations with oneself, with nature, and with others . Innovation skills are skills that are very important to be applied in learning because innovation is the implementation and adoption of new thoughts by individuals in the company. Critical thinking skills are cognitive skills that enable a person to investigate a situation, problem, question, or phenomenon in order to make an assessment or decision Critical thinking is indispensable in learning for students to develop broader insights.

#### **4. Conclusion**

As obtained a significant contribution between 21st century-based learning contributions (X), to the entrepreneurial spirit of teachers (Y) in Vocational Schools in Tapung Hulu Kampar District with a contribution of 42.00% with very high interpretation, because there are still 58.00% determined by other factors that were not part of this study. This contribution is illustrated by each increase in one unit on the variable will be followed by an increase in 21st century based learning (X), to the entrepreneurial spirit of the teacher (Y) of 1,178 one unit. This means that teachers are able to improve 21st century based learning, together to achieve the desired goals by; (1) self confidence; (2) task and outcome oriented; (3) dare to take risks; (4) future-oriented leadership; and (5) creativity and innovation.

Based on the contribution of 21st century skill-based learning (X) to the entrepreneurial spirit of the teacher (Y) in Vocational Schools in Tapung Hulu Kampar Subdistrict, the school through the principal's policy can improve activities that are improving the views of teachers towards 21st century skill-based learning by, (1) Confidence, (2) Task and results oriented (3) Dare to take risks, (4) Leadership oriented to the future, (5) Creativity and innovation are good.

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