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Application of Sainspreneur to Grow Independence and Entrepreneurial Spirit of Elementary School Students

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ABSTRACT

This study aims to determine the influence of sciencepreneur learning on learning independence and entrepreneurial spirit of grade IV students at SD Negeri 1 Pakelen for the 2022/2023 academic year. This research uses a quantitative research approach, with associative quantitative research types, and uses quantitative analysis methods (numerical data). Data on learning independence and entrepreneurial spirit were collected using observations using assessment instruments in the form of rubrics. The sample in this study amounted to 22 learners. The research data were processed using a simple linear regression test with the results of the influence of sciencepreneur learning on learning independence t-count = 6.103 and t-table =2.086 means t-count > t-table. For the effect of sciencepreneur learning on entrepreneurial spirit, t count = 7.813 and t table = 2.086 means t-count > t-table. Based on the results of this study, it shows that there is an influence of sciencepreneur learning on learning independence and entrepreneurial spirit of grade IV students of SD Negeri 1 Pakelen for the 2022/2023 academic year.

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1. INTRODUCTION

In line with the development of science and technology which is supported by the rapid flow of globalization from time to time, competition has emerged in various fields of life, including the world of education. It is hoped that the world of education will produce a reliable and high- quality young generation as a means of creating graduates who are ready to competein various fields of life and have a mindset that is adaptive to various information and challenges.

Education itself has the main goal of being a medium for developing potential andeducating humans so they are ready to face life in the future. As stated in the National Education System Law Number 20 of 2003, national education aims to ensure that education not only forms intelligent Indonesian people but has character. There are 18 aspects of character that are used as national character. One of them is the aspectof independence. Independence is the part ofcharacter that is related to oneself. Independence is an attitude and behavior that cannot easily rely on other people to getthings done (Asmani, 2014).

Independence in learning is a conscious activity in learning without anypressure or pressure from the surroundingenvironment to realize one's responsibilityas a student in facing difficulties. (Yani, S & Surya, 2017). In this case, students who have independence should be able to carry out learning independently, be able to determine effective learning methods, andbe able to complete learning tasks well. However, students are still

often found doing assignments by copying a friend's assignment or doing it by adults around the students.

Not only that, education in the 21st century is now something that can createstudents to have several learning and innovation skills, use technology andinformation media and be able to work and survive using life skills (Kemdikbud, 2013: 5). Wagner (2010) and the Change Leadership Group from Harward University identified the competencies and survival skills needed by students in facing life, the world of work and citizenship in the 21st century, emphasizing 7 skills, namely: (1) the ability to think critically and solution to problem; (2) collaboration and leadership; (3) agility and adaptability; (4) able to communicate effectively both orally and in writing; (5) able to access and analyze information; (6) have curiosity and imagination; and (7) have initiative and havean entrepreneurial spirit.

According to Zimerrer (Sumarti, 2008) entrepreneurship is the process of applying creativity and innovation in solvingproblems and find opportunities to improve your life. The entrepreneurial spirit or entrepreneurial spirit is a capable soul creating added value from limitations in an effort to create added value by capturing business opportunities and managingresources to make them happen (Daryanto, 2017).

Entrepreneurship education is notonly delivered through theory, but must be supported by providing direct learning experiences to students through observingproblems that occur in the surrounding environment then designing activities and putting them into practice as innovative steps to solve these problems (Ristiana, 2014). Indicators of an entrepreneurial spirit include having the will and self-confidence, focusing on targets, daring to take risks, being responsible, hardworking and innovative. Therefore, entrepreneurshipeducation needs to be instilled starting from the scope of basic education, especially elementary school. Entrepreneurship for children does not mean employing children, but instilling entrepreneurial values from an early age.

According to Mulyani (2011), every lesson should integrate entrepreneurship education into every subject. This means internalizing entrepreneurial values into learning so that results can be obtained in the form of awareness of the importance of values, the formation of entrepreneurial character and the habituation of entrepreneurial values in students' dailybehavior. In addition to making students master the targeted competencies (material), learning activities that are integrated withentrepreneurship are basically also designed so that students know, realize, internalizeentrepreneurial values and turn them into real behavior.

Creating an entrepreneurship-based learning atmosphere is one thing that can be done by designing learning to identify economic potential at the local level and developing this potential for the welfare of society can be realized by integrating it with science education which concentrates on Natural Sciences (IPA). Science is knowledge that studies, explains and investigates natural phenomena with allempirical aspects (Sitiatava, 2013: 51). Elementary school science education inIndonesia is carried out through discovery and scientific inquiry by developing process skills and scientific attitudes through direct experience (Destya, et al, 2017). However, the current phenomenon is that the learning process is still dominant in the classroom, sothis is not in accordance with the essence of Natural Sciences (IPA), which is a collection of concepts, principles, laws and theories formed through a systematiccreative process through inquiry followed bya process of continuous (empirical) observation; is a human effort that includes mental operations, skills and strategies for manipulation and calculation, which can be tested again for truth based on an attitude of curiosity, courage and persistence carried out by individuals to uncover the secrets of nature. universe (Indrawati, et al., 2016).

To produce people who areproductive, creative, innovative,independent, have knowledge, skills and have an entrepreneurial spirit, science and entrepreneurship education needs to be integrated into science subjects. This educational program is carried out in an integrated manner between science and entrepreneurship or called Sciencepreneur Teachers need to design and implement good teaching and learning strategies, namely organizing a learning process that is interactive, inspiring, fun and challenging,so that students are motivated to participate actively and are enthusiastic about being the best at implementing educationsciencepreneur (Barlian, 2013).

Sciencepreneur is science-basedentrepreneurial education, namely anentrepreneurial concept that not only trains skills, but also develops students' critical thinking to find solutions to problems in the surrounding environment through thescience process. Sciencepreneur accordingto the mindset of a scientist and entrepreneur is seeing problems into opportunities, which includes a creative and innovative attitude (PPPPTK IPA, 2020).

The characteristic of aSciencepreneur is independent innovation based on scientific principles, most of the implementation process of which must be based on student innovation, capable of being implemented by students as independently as possible, and of value. Theapplication of sciencepreneur in sciencelearning is directed at science process skills, namely when students make scientific discoveries, they will learn skills and abilities which include observing,classifying, interpreting, predicting,communicating, asking questions, hypothesizing, planning experiments, using tools/materials and apply the concept. The benefit of Ilmupreneur for science educationis as an exploration of the results of implementing a project-based science learning model, which can encourage students' independence to produce innovative work and interact with variousparties in society beyond the limits of the school curriculum, honing collaboration,communication, critical thinking andcreative thinking skills. , will be developed more intensively (PPPPTK IPA, 2020).

The application of sciencepreneur learning can collaborate with project-based learning. The stages of sciencepreneur learning are the stages of exploringinformation, innovation, production, application and evaluation and reflection (Cholifah.W, 2022). The application of sciencepreneur learning in science subjects aims to make the learning process more applicable, namely by equipping students directly to design and develop products using scientific concepts so that they have economic value and environmental insight which is beneficial for students so that they bIdeal and enjoyable learning is needed to realize optimal education. So implementing sciencepreneur education into elementary school science subjects is one of the right solutions. The application of sciencepreneur education requires project-based activities that are used by students to produce products. The process of producing these products can be used as a means of basic life skills education for students in terms of foodsecurity, which will be useful for equipping them to provide for themselves.

The right strategy to answer this challenge is to apply sciencepreneur learning. Based on the background that has been described, the researcher will carry out research to determine the effectiveness of implementing sciencepreneur to foster independence and entrepreneurial spirit in students at *SD*Negeri 1 Pakelen, Madukara BanjarnegaraDistrict.ecome intellectually and financially strong people in the future day.

2. RESEARCH METHODOLOGY

This research aims to analyze the influence of sciencepreneur learning to foster students' learning independence andentrepreneurial spirit. The research wascarried out in class IV of SD Negeri 1 Pakelen for the 2022/2023 academic year in Pakelen Village, Madukara District, Banjarnegara Regency. The research was carried out from May to June 2023. This research used quantitative methods. According to Sugiyono (2015:14) quantitative methods are research methods based on the philosophy of positivism,which are used to research certain populations or samples, collect data usingresearch instruments, quantitative/statistical data analysis, with the aim of testing predetermined hypotheses. The type of research used in this research is associative research using quantitative analysis methods(data in the form of numbers). The associative method is research that aims to determine the relationship between two or more variables (Sugiyono, 2009).

The type of research used is in accordance with the objectives to be achieved, namely wanting to know the effectof sciencepreneur learning to foster learning independence and an entrepreneurial spiritafter implementing sciencepreneur learning. The paradigm used in this research isa dual paradigm with two dependent variables (Sugiyono, 2009). The following isa picture of a dual research paradigm.

Information:
X1: Independent variable
Y1: Dependent/dependent variable 1Y2: Dependent/dependent variable 2

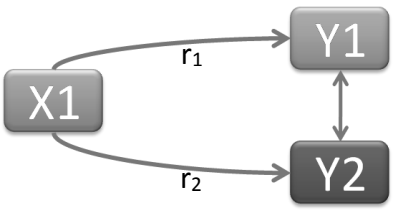

Figure 1 Multiple Research Paradigm

Where:
r1,r2 :Simple correlation

Thevariables in this research include independent/free variables (X) and dependent/bound variables (Y1 and Y2). Independent variable (X) in this research is sciencepreneur learning. Meanwhile, the dependent variable (Y1) is learning independence and (Y2) entrepreneurial spirit.

The population of this study was all students at SD Negeri 1 Pakelen for the 2022/2023 academic year, totaling 107. The sampling technique used was purposivesampling technique. Purposive sampling technique is determining a sample from the whole population with certainconsiderations, and to determine the sample based on recommendations from the teacher.The sample is a part or representative of the population studied. The sample in this study was class IV, a total of 22 students consisting of 14 boys and 8 girls.

The data collection technique used inthis research is by using an assessment rubric. The data obtained from the data collection results were then carried outprerequisite tests consisting of normality tests and linearity tests before testing thehypothesis of the influence of the independent variable on the dependent variable. The data normality test is used as a reference to see that the sample data comes from a normally distributed population. Normality testing using SPSS 26 for windows based on the Kolmogorov-Smirnovtest. To determine the normality

of the data, the test significance level uses α = 0.05. If the significance obtained is >α, then the sample comes from a normally distributed population. Meanwhile, the linearity test is aprocedure used to determine whether research data is linear or not. Testing onSPSS 26 for Windows using the Test forLinearity is the basis for decision making using ANOVA output at a significance levelof 0.05. If sign > 0.05 then the relationship between two variables is linear.

To determine the influence between the independent variable and the dependent variable in this research, a hypothesis test was carried out using simple linear regression analysis. Simple regression was chosen because researchers wanted to identify the influence of sciencepreneurlearning (X) on learning independence (Y1) and the influence of sciencepreneur learning (X) on entrepreneurial spirit (Y2).

The simple linear regression formula used inthis research is:

$$a = \frac{\sum y \sum x^2 - \sum x \sum xy}{N \sum x^2 - (\sum x)^2}$$

$$b = \frac{N \sum xy - \sum x \sum y}{N \sum x^2 - (\sum x)^2}$$

Figure 2

Y = a + bxInformation:
Y :dependent variable
X :independent variablea and b : constant
To find the prices of a and b, use thefollowing formula:

However, the simple linear regression test calculations in this study were analyzed using SPSS 26 for Windows. Hypothesis acceptance and rejection criteria if:

1. Ttabel < Tcount, or significant ≤ 0,05 then the hypothesis nol (H0) is rejected and the alternative hypothesis (H_a) is accepted. Thismeans that there is a significant influence between one independent variable and the dependet variable.
2. Ttabel > Thitung, or significant ≥ 0,05 then the nol hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected. Thismeans that there is no significant influence between an independent variable on the dependet variable.

3. RESULTS AND DISCUSSIONS

Results

A. Data Description

The aim of this research is to determine the effect of sciencepreneur learning on learning independence and entrepreneurialspirit in class IV at SD Negeri 1 Pakelen Banjarnegara. This research is included in associative research using quantitative analysis methods (data in the form ofnumbers) which aims to determine therelationship or influence between two or more variables. The population in this study were all students at SD Negeri 1 Pakelen Banjarnegara. For the sample, the researchertook 22 class IV students at SD Negeri 1 Pakelen. The research was carried out in May-June 2023. The data in this researchwas obtained through an assessment rubric. The observation assessment rubric usedaims to determine the influence of sciencepreneur learning on students' learning independence and entrepreneurial spirit. This assessment is carried out on students when carrying out sciencepreneur learning activities. The assessment rubric used was developed from indicators of learning independence with 10 rating scales,and indicators of entrepreneurial spirit with 10 rating scales.

B. Prerequisite Test and Hypothesis Test

The normality test used in this research is the One-Sample Kolmogrov-Smirnov test using a significance level of 0.05. Data is declared normally distributed if the significance is greater than 5% or 0.05. The variables of learning independence and entrepreneurial spirit have a significance value of 0.200. So in this study the two variables can be said to be normally distributed. The linearity test (Test for Linearity) on the basis of decision making uses ANOVA output at a significance level of 0.05. If sign > 0.05 then the relationship between two variables is linear and if sign < 0.05 then therelationship is not linear. The results of the linearity test calculations in this research show a product significance value of > 0.05, which means the sciencepreneur learning variable and the independence andentrepreneurial spirit variables are linear.

Hypothesis testing in this research uses simple linear regression to determine the effect of the independent

variable on the dependent variable with the following equation Y = a+bx. The criterion for accepting the hypothesis is if ttable < tcount,or significant ≤ 0.05 then the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. This means thatthere is a significant influence between one independent variable and the dependentvariable.

1) Hypothesis Analysis 1

Hypothesis 1 in this research is as follows.

- H0: µ1 = µ2 There is no influence of scienceprenuer learning on the learningindependence of class IV students at SD Negeri 1 Pakelen.
- H1: µ1 ≠ µ2 There is a significant influence of sciencepreneur learning on the learning independence of class IV students at SD Negeri 1 Pakelen.

Through a simple linear test, results wereobtained as presented in tables 4 and 5 below.

Table 1. Regression Test Output (Model Summary)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802[a]	.643	.626	2.540

a. Predictors: (Constant), Sainsprenuer

b. Dependent Variable: Kemandirian

Table 1 Regression Test Output (Model Summary)

Based on the table above, the value of the coefficient of determination (r Square)of 0.651 explains that the influence of the independent variable Ilmupreneur on the dependent variable learning independence (Y1) is 65.1%, while the remaining 34.9% isinfluenced by other factors outside thevariable x.

Table 2. Regression Test Output(Coefficients)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.037	4.670		3.862	.001
	Sainsprenuer	.661	.110	.802	6.008	.000

a. Dependent Variable: Kemandirian

Table 2 Regression Test Output (Coefficients)

Based on the significance value fromthe Coefficients table, a significance valueof 0.000 <0.05 is obtained, so it can be concluded that the sciencepreneur variable (X) INFLUENCE on the learning independence variable (Y2).

The T value is 6.008 > from the T table 2.086 so it can be concluded that the sciencepreneur learning variable (X) influences the learning independencevariable (Y1).

2) Hypothesis Analysis 2

Hypothesis 2 in this research is as follows:

a. H0: µ1 = µ2 There is no influence ofsciencepreneur learning on the entrepreneurial spirit of class IV students at SD Negeri 1 Pakelen.
b. H1: µ1 ≠ µ2 There is a significant influence of sciencepreneur learning on the entrepreneurial spirit of class IV students at SD Negeri 1 Pakelen.

Through a simple linear test, results wereobtained as presented in the following table.

Table 3. Regression Test Output (Summary Model)

Model Summary[b]				
Model	R	R Square	Adjusted R Squa	S
1	.868[a]	.753		

Table 3 Regression Test Output (Summary Model)

Based on the table above, the value of the coefficient of determination (R square) of 0.753 explains that the influence of the independent variable Ilmupreneur (X) on the dependent variable EntrepreneurialSpirit (Y2) is 75.3% while the remaining24.7% is influenced by other factors outside variable x.

Table 4. Regression Test Output(Coefficient)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.220	3.163		6.076	.000
	Sainspreneur	.594	.076	.868	7.813	.000
a. Dependent Variable: Jiwa Kewirausahaan						

Table 4 Regression Test Output (Coefficient)

Based on the table above, it explains that the calculated T value is 7.813 > from Ttable 2.086 so it can be concluded that the sciencepreneur learning variable (X) influences the entrepreneurial spirit variable (Y2). The Constant value (a) is 19.220, the sciencepreneur value (b) regressioncoefficient is 0.594 so the regression equation is: Y= 19.220 + 0.594X. The Constant value of 19.220 indicates a consistent value of the sciencepreneur variable (X) of 19.220. The regressioncoefficient The regression coefficient ispositive so that the direction of influence of the sciencepreneur variable on the entrepreneurial spirit variable is positive.

C. Discussion of Research Results

The research discussion aims to provide an overview and results obtained from this research. The discussion in the research will discuss how the research results that have been tested are then analyzed again and see the influence that the Ilmupreneur Learning Variable has on the learning independence and entrepreneurial spirit of class IV students at SD Negeri 1 Pakelen, Madukara District, Banjarnegara.

1) Application of Sainspreneur Learning

The application of sciencepreneur learning has been used in learning as an applicable learning model in classes where research is carried out. This learning can facilitate students' understanding with a student-based learning approach through direct practice to produce a product to build students' learning independence and entrepreneurial spirit.

In research conducted by Ristiana (2014) entitled The Influence of the Prob- Pro-BL Learning Model on the Entrepreneurial Spirit of Vocational School Students through Exterior Production, it was stated that entrepreneurial learning is not only conveyed through theory, but must be supported by providing direct learning experiences to students. through observing problems that occur in the surrounding environment, then designing activities andputting them into practice as innovative steps to solve these problems. In this research, it is also recommended to integrateand develop project-based learning designs in other areas of expertise, one of which is agriculture, as a means of developing an entrepreneurial spirit in students.

In essence, the application of sciencepreneur learning is designed to train students to have entrepreneurial abilities through the science process, namely the ability to see a problem and use entrepreneurial methods to create useful scientific applications. The benefits of implementing sciencepreneurship include that in students the spirit of sciencepreneurship is awakened, namely the ability to process scientific knowledge and skills to be used to improve their standard ofliving in the future.

The application of sciencepreneur learning in this research was carried out in an integrated manner into the class IV science subject, material on changes in the shape of objects. The application of sciencepreneur learning in science learning aims to build independence and an entrepreneurial spirit by utilizing science in everyday life and developing it to achieve prosperity in life in the future. To achieve this goal, students are given stimulus through the practice of making candied snake fruit. Learning in making candied salak is one of the applications of applicable learning through direct practice.

The sciencepreneur implementationactivity was held four times. The firstmeeting is the initial stage in sciencepreneur, namely the stage of digging up information. The activity begins with students singing a song about changes inform, which is continued with the core activity of conducting experiments about changes in the form of objects. The second meeting is the innovation stage. Students visit the snake fruit sweets production site. Students can get information directly from sources which can provide some inspiration so that students are motivated to make innovations in learning. The third meeting isthe production stage, namely making candied snake fruit. Researchers made observations from the initial process untilthe process of making candied zalacca was completed for students' independent learningaccording to the indicators.

At this production stage, students can observe and understand several changes in form, including changes in the form of evaporationand condensation. The fourth meeting is the application stage through market day activities, namely marketing candied salak products that have been made. At this stage students can learn about changes in the formof melting objects which can be observed in ice cubes as a complement to the marketing of snake fruit sweets which were originally solid, over time they will turn into water. Researchers made observations to measure the entrepreneurial spirit of students at this stage.

Based on the explanation above, it can be concluded that the application of sciencepreneur in science learning inelementary schools aims to provide life skills abilities to develop students intohumans who have an entrepreneurial spirit in accordance with entrepreneurialcharacteristics and science process skills.

2) The Influence of SainspreneurLearning on Learning Independence

The results of statistical testing between the Sainspreneur Learning indicator (X) and the learning independence variable (Y1) have a regression of 0.807 (Strong),while the magnitude of the influence is 65.1%, and the influence of other factors is 34.9%. From the data it is also obtained that Tcount (6.103) ≥ Ttable (2.7086). So that from the results of the hypothesis test that has been carried out, it can be seen that H0is rejected and Ha is accepted, meaning that there is a significant influence from the sciencepreneur learning variable (X) on the learning independence variable (Y1).

According to Asrori (2020, p. 121) independence is a behavior possessed by someone who is able to take the initiative to do all kinds of work to fulfill their needs without having to depend on other people and do it responsibly. Independence inlearning is a conscious activity in learning without any pressure or pressure from the surrounding environment to realize one's responsibility as a student in facingdifficulties (Yani, S & Surya, 2017).

Students' learning independenceduring the research process was observedusing observation techniques with indicatorsincluding freedom and responsibility, progressive and tenacious, initiative or creative, self-confidence and self-control. Looking at the results of the rubric hypothesis test to measure learning independence carried out by researchers, with a value of Tcount (6.103) ≥ ttable (2.7086). So from the results of the hypothesis test that has been carried out it can be seen that H0 is rejected and Ha is accepted, it can be concluded that there is a significant influence of the application ofsciencepreneur learning on the learning independence of class IV students at SD Negeri 1 Pakelen, Madukara Banjarnegara District.

The application of sciencepreneur learning has been proven to have an effecton students' learning independence becauseit uses learning treatments that combine science education and entrepreneurshipwhich produces products. This is inaccordance with the results of researchconducted by Wita Cholifah (2022) with the title Application of STEAM-Oriented Sciencepreneurship through Urban Farming Techniques to Build Student Independence and Creativity at MuhammadiyahElementary School, Banjarnegara District. In this research, it was proven that the application of sciencepreneur had an effect on students' independence as proven by the results of a questionnaire hypothesis test to measure independence carried out byresearchers, with a 2-tailed probability (significance) value of 0.000 < 0.05, so H1 was accepted.

Based on the explanation above,according to experts and the results of previous research and researchers' findings,it can be concluded that the application of Ilmupreneur has a positive effect on the learning independence of class IV students at SD Negeri 1 Pakelen, Madukara Banjarnegara District.

3) The Influence of SciencepreneurLearning on the Entrepreneurial Spirit

The results of statistical testing between the sciencepreneur learning indicator (X) and the entrepreneurial spirit variable (Y2) have a regression of 0.868 (Strong), while the magnitude of the influence is 75.3%, and the

influence of other factors is 24.7%. From the data also obtained tcount (7.813) > Ttable (2.086). So from the results of the hypothesis test that has been carried out it can be seen that H0 isrejected and Ha is accepted, meaning thatthere is a significant influence from the sciencepreneur learning variable (X) on the entrepreneurial spirit variable (Y2).

The entrepreneurial spirit of studentsis generated from the process of making candied snake fruit products, where this research uses an observation assessment rubric during the sciencepreneur learning process. The assessment rubric used tomeasure it is in accordance with the indicators of entrepreneurial spirit.

Looking at the results of the rubric hypothesis test to measure the entrepreneurial spirit carried out by researchers, Tcount was 7.813) ≥ Ttable (2.086). So that the results of the hypothesis test that has been carried out can be seenthat H0 is rejected and Ha is accepted. It canalso be seen that the results of statistical testing between the sciencepreneur learning indicator (X) and the entrepreneurial spirit variable (Y2) obtained: Constant value (a) of19.220, sciencepreneur value (b) regression coefficient of 0.594 so that the regression equation is: Y= 19.220 + 0.594X. The Constant value of 19.220 shows theconsistent value of the sciencepreneur variable (X) of 19.220. The regressioncoefficient value The regression coefficient is positive so that the direction of influence of the sciencepreneur variable on the entrepreneurial spirit variable is positive.

The application of sciencepreneur learning has proven that there is a positive influence of the application of sciencepreneur learning on the entrepreneurial spirit of class IV students at SD Negeri 1 Pakelen, Madukara Banjarnegara District. The results of this research are supported by researchconducted by Ulya Fawaidaa, Henry Setya Budhib, and Ullum Miftaqul Zannah Gustita'iroh (2019) entitled Sciencepreneurship of Science StudyProgram Students in Basic Biology Practicum Courses. Based on the average questionnaire data, it shows that students'interest in learning using the sciencepreneurship approach is very high,reaching 92%. This approach can be applied in various courses, so that the entrepreneurial spirit can continue to be improved.

4. CONCLUSIONS

Based on the results of research and data analysis using simple linear regression techniques that have been carried out in this research, it can be concluded that firstly, there is a significant influence of sciencepreneur learning on the learningindependence of Class IV Students at SDNegeri 1 Pakelen Banjarnegara for the 2022/2023 Academic Year. The magnitude of the influence of Sainspreneur learning on learning independence is 65.1%, the remaining 34.9% is influenced by other factors.

Second, there is a significant influence of sciencepreneur learning on the entrepreneurial spirit of Class IV Students atSD Negeri 1 Pakelen Banjarnegara for the 2022/2023 Academic Year. The magnitude of the influence of sciencepreneur learning on the entrepreneurial spirit is 75.3%, and the remaining 24.7% is influenced by other factors.

This is because sciencepreneur learning can be an applicable learning innovation and can foster learning independence and an entrepreneurial spiritin students, so that they can read thepotential that exists in the environment and turn it into a valuable opportunity for the future. Therefore, it is highly recommended for educators to implement sciencepreneur learning as a learning innovation in schools.

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