

Creative Entrepreneurship Learning Model Based On Local Wisdom Through Carrot Bean Sprout Spring Roll Innovation In Science Learning Grade 4

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ABSTRACT

Introducing local wisdom to elementary school students is an important step in creating a generation that knows their own culture. The introduction of local wisdom involves not only understanding traditions, but also the introduction of cultural products that have economic value, such as specialty foods. The purpose of this study is to develop entrepreneurial skills, critical thinking, and innovate independently through the product “Lumpia Wortel Tauge”. This model is designed to introduce the concept of edupreneurship by combining the material of natural resource utilization in science learning and the introduction of local wisdom through the process of making spring rolls. This research used a descriptive qualitative method. Data collection techniques used observation, interview, and questionnaire to measure active participation, collaboration among students, understanding of nutrition, and product production and promotion skills. The results showed that practice-based learning in spring roll making can improve students' understanding of science concepts as well as basic entrepreneurial skills. Thus, students are not only consumers of products, but also learn to be creative producers who appreciate local cultural heritage and understand the importance of healthy eating. The results recommend that students can learn entrepreneurship by utilizing local wisdom and adding innovation as a development product. Carrot bean sprouts spring rolls are a new potential that can develop practical entrepreneurial skills for students of SD Pangudi Luhur Santo Yusup.

Keywords: edupreneurship; entrepreneurship learning; local wisdom; carrot bean sprout spring rolls; innovation

INTRODUCTION

In the context of basic education, the importance of introducing local wisdom is increasingly recognized as part of efforts to preserve culture while enriching learning. The introduction of local wisdom involves not only an understanding of traditions, but also an introduction to cultural products that have economic value, such as specialty foods. Teaching students to appreciate local wisdom, such as traditional food, from an early age can have a positive influence on their understanding of cultural origins, as well as open their eyes to the world of entrepreneurship. The purpose of Indonesian national education in accordance with Law No. 20 of 2003, namely, Education is pursued by starting from the human as it is (actualization) by considering the various possibilities that exist (potentiality), and directed towards the realization of human beings who should be or human beings who are aspired to (ideality) (Sujana, 2019). In the current era of globalization and digitalization, basic education plays an important role in shaping the character and abilities of students. (Mauridhatul Kasanah, 2024). One approach that is gaining traction is edupreneurship, which combines the concept of education with entrepreneurship. This concept focuses not only on providing academic knowledge, but also on developing practical skills and creative attitudes needed in real life. Edupreneurship is a breakthrough change in the field of education to not just produce graduates in such a large quantity at each period, but can produce graduates who are good, quality, quality and have high competitiveness to make a positive contribution and benefit many people. Several studies have shown the positive impact of entrepreneurship education programs for students in terms of developing entrepreneurial knowledge, mentality, skills and competencies and attitudes.

Edupreneurship provides direction on how to develop learners' way of understanding how they handle their resources. (Addini, 2023). People who receive entrepreneurship education tend to have greater entrepreneurial intentions and beliefs. This affects their ability to complete entrepreneurial tasks. Edupreneurship can be provided to all educational institutions, for example at the early childhood level even up to higher education through lessons at school, courses on campus and in non-formal education. (Asna et al., 2023) In edupreneurship In edupreneurship, the concept is emphasized on creative and innovative efforts made by schools in order to get income (Fadlullah, 2011) (Afifandasari & Subiyantoro, 2022). Creative concepts and appropriate learning media will be an important element in the teaching and learning process (Maritim, 2024). The use of learning media is needed to improve the quality of education in learning. Media has the function of providing visual support in learning activities to encourage learning motivation, clarify and simplify complex abstract concepts to be simpler, more concrete, and easier to understand. In this way, the media can increase students' ability to absorb learning material (Miarso in Musfiqon, 2012: 32). Hamalik (in Arsyad, 2012: 15) argues that using learning media in the teaching and learning process can create new desires and interests, motivate and stimulate learning activities, and even have a psychological impact on students. (Nursafitri et al., 2021). Learning media used at the learning orientation stage will greatly contribute to the effectiveness of the learning process and the delivery of messages and lesson content at that time and make learning more meaningful. According to Kemp and Dayton (Daryanto, 2013: 6) learning media can clarify the presentation of messages and information to facilitate and improve student learning processes and outcomes. Because students' learning styles and ways are not the same, all stages carried out in the learning process must be planned properly. The teacher acts as a learning facilitator, assisting students in exploring concepts and ideas, and

developing critical and creative thinking skills. Students are also actively involved in learning, which allows them to be more involved in the learning process and achieve more meaningful and meaningful learning goals. (Mulyosari & Khosiyono, 2023) Analyzing the needs in the environment around the school by combining interesting learning media and the concept of edupreneurship, there is a new innovation that processes the original spring rolls into an innovative product of carrot bean sprout spring rolls. The existence of tofu “home industry” in the neighborhood around the school provides great potential to be used as an interesting learning resource for students. The process of making the innovative spring rolls involves a mixture of carrot and bean sprouts vegetables as a nutritious combination, which is a science phenomenon that can be observed directly. However, this potential is often not optimally utilized.

In science learning about the utilization of natural resources, namely plants and animals, students can practice how to apply the utilization of natural resources, namely plants of various types of vegetables and animals that can be consumed by humans, students can better understand abstract concepts to be real through the processing of making spring rolls. The abundant availability of raw materials allows students to be creative and develop new processed products, such as “Carrot and Bean Sprouts Spring Rolls”, which are not only delicious but also nutritious. Many home industries still make spring rolls with the same vegetable element, bamboo shoots, offering different prices and sizes between sellers. In fact, with a little creativity, spring rolls can be processed into a variety of delicious and attractive flavors for children. Lack of knowledge about nutritional values and nutrition as well as how to process delicious food can cause students to be less interested in consuming original spring roll products. Therefore, there needs to be an effort to increase students' interest in consuming spring rolls made from bamboo shoots that are innovated with a mixture of carrots and bean sprouts.

The solution offered in this research is the development of a learning model that integrates the concept of natural resource utilization, namely plants and animals, with practical activities to make carrot and bean sprout spring rolls. Through this activity, it is expected that students not only understand the concept of natural resource utilization more deeply but also can develop the skills of innovation, critical thinking, and entrepreneurship. Thus, students will not only become consumers of spring roll products, but also creative and independent producers. In addition, this research is also expected to contribute to the development of spring roll products with various and interesting flavors, so as to increase the consumption of vegetable protein in the community.

Peterongan Urban Village, South Semarang Subdistrict is one of the areas where many of its residents open a household industry, namely producing spring rolls. With the theme of local wisdom, SD Pangudi Luhur Santo Yusup tried to develop a product, namely “LUMPIA WORTEL TAUGE” which uses the basic ingredients of bamboo shoots, carrots, bean sprouts, shrimp, and eggs. This is also integrated with science learning material on the utilization of natural resources. This spring roll will be produced and marketed in the healthy canteen of SD Pangudi Luhur Santo Yusup.

Previous research shows that the creative entrepreneurship learning model through business practices can foster creativity and innovation in students (Harnani, Amijaya, & Setiadiwibawa, 2020). In addition, creative product learning and entrepreneurship are also influenced by parents' socioeconomic status on students' entrepreneurial intentions (Novitasari & Susantiningrum, 2024). Entrepreneurship development requires an understanding of the keys to success in becoming an entrepreneur, which include planning, production, and marketing (Munadjat & Harnani, 2016). Creativity is also an important skill

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ISSN (Online): 2988-7100

Vol. 02, No. 02, November 2024, Page. 66-74

Available Online at <https://journal2.upgris.ac.id/index.php/schola/>

that needs to be integrated in the 21st century curriculum (Piiro, 2011). Therefore, effective entrepreneurship learning should cover these various aspects to equip students with relevant skills (Alma, 2017).

Some of the relevant research in this study includes research by Harnani, N., Amijaya, D.T & Setiadwibawa, L. (2020) on Creative Entrepreneurship Learning Models through Business Practices in Fostering Student Creativity and Innovation. The research method is a case study method with a qualitative approach. The results showed that the creative entrepreneurship learning model through business practices can foster creativity and innovation in students. In addition, research conducted by Novitasari, M.P., & Susantiningrum, S. (2024) on the Effect of Creative Product Learning and Entrepreneurship and Parents' Socioeconomic Status on Entrepreneurial Intention. The research method is a survey method with a quantitative approach. The results showed that creative product learning and entrepreneurship were influenced by parents' socioeconomic status on students' entrepreneurial intentions. Another researcher by Piiro, J. (2011) on Creativity for 21st Century Skills: How to Embed Creativity into the Curriculum. The research method is a literature review method with a qualitative approach. The results showed that creativity is an important skill that needs to be integrated in the 21st century curriculum. Finally, research by Nahdiya Asna, Nana Alfiana and Binti Nur Asiyah (2023) on the Urgency of Edupreneurship as an Effort in Preparing for the Indonesian Golden Era. This research uses a qualitative approach of literature study type. The results showed that the provision of edupreneurship programs to students in all educational institutions both formal and non-formal had a positive impact. This includes increasing interest, independence and innovative spirit.

From the relevant previous research, the purpose of this research and its novelty is to explore the potential of spring rolls as an innovation product and learning media for the concept of utilization of natural resources for elementary school students using needs assessment. Analyzing needs is one of the important activities in designing learning. This is in accordance with the design objectives developed to help solve student learning needs and teacher teaching needs whose interactions are realized in the learning process. John Mc Neil (Sanjaya, 2010: 92) states that needs analysis is an integral cycle with program development, implementation and evaluation. Designing learning that begins with a needs study allows the results to be optimally utilized by individuals who need it related to entrepreneurship-based learning. The purpose of this research is to identify the factors needed by students and teachers in entrepreneurship-based learning.

METHOD

This research uses a qualitative approach with a case study method. The focus of the research is on the implementation of the creative entrepreneurship learning model through the innovation of carrot bean sprout spring rolls in science learning in grade 4. The research was conducted in one of the elementary schools in Semarang, Central Java, during one school semester, from January to June 2024. The research subjects were 4th grade students who were involved in the practical activity of making carrot bean sprout spring rolls. The selection of subjects was done by purposive sampling to ensure the involvement of students who are active and have interest in practice-based learning activities. The research instruments used were observation sheets to record students' active participation, interaction, and collaboration during the activities. Interview activities, conducted to explore students' understanding of science and entrepreneurship concepts. Documentation in the form of photos and videos used can support observation and interview data as well as questionnaires to measure students' level of satisfaction with learning activities and their understanding of

the material taught. During the implementation, the researcher observed the process of implementing the practical activity of making carrot bean sprout spring rolls in the classroom. Students have been divided into small groups to facilitate collaboration and interaction. Each group was given the task to prepare the ingredients, process, and promote the spring rolls they made. The research data can be collected through observation, interview, documentation, and questionnaire during the activity. Observation to record students' active participation and interaction. Interviews after the activity to evaluate students' understanding of science and entrepreneurship concepts. Documentation to support observation and interview data. Questionnaires that have been given to students to measure their level of satisfaction and understanding. After the data was collected, the researcher analyzed the data using qualitative analysis techniques. Data from observations, interviews, documentation, and questionnaires were analyzed to identify the main themes that emerged related to active participation, concept understanding, and entrepreneurial skills of students. The research results obtained in the form of reporting that includes the main findings, data interpretation, and recommendations for the development of creative entrepreneurship learning models in elementary schools.

RESULTS

Based on the results of research that has been carried out by researchers by conducting observations and interviews at the research location, namely SD Pangudi Luhur Santo Yusup, which is located at Jalan Mataram No.874, Peterongan, Central Semarang District, Semarang City, obtained the results of knowing more about the concept of edupreneurship carried out by teachers and student work practices to make carrot bean sprout spring rolls in groups.

Table 1. Results of Analysis of Observation, Interview and Questionnaire Instruments

No.	Research Variables	Research Instruments	Research Results
1	Active Participation in Activities	observation sheet	85% of students showed high active participation, while 15% of students showed moderate active participation
2	Interaction and Collaboration between students	observation and interview	90% of students engaged in positive interaction and collaboration, while 10% of students still needed further guidance in working together.
3	Understanding of Carrots and Bean Sprouts	interviews and questionnaires	Students' understanding increased by 75% after participating in the activity, with 80% of students able to explain the life cycle of plants well and 70% of students understanding the nutritional benefits of carrots and bean sprouts.

4	Understanding the Benefits of Nutrition	interviews and questionnaires	85% of students understand the nutritional benefits of carrots and bean sprouts, with 80% of students realizing the importance of vegetables in their daily diet.
5	Understanding of Production and Entrepreneurship	observation, interview, and questionnaire	80% of students understand the production workflow and basic concepts of entrepreneurship, with 75% of students able to plan and execute the production process well.
6	Creativity in Promotion	observation and interview	70% of students showed high creativity in promoting their products, with 65% of students able to develop innovative promotional ideas.

Research Results

After observing the activities of making carrot bean sprout spring rolls carried out by 4th grade students of SD Pangudi Luhur Santo Yusup, the following results were obtained:

Table 2: Research Results of Carrot Bean Spring Rolls Making Activity

No.	Research Variables	Research Results
1.	Active Participation in Activities	During the spring roll making activity, students showed great enthusiasm. They were actively involved in every stage of the process, from the introduction of raw materials, preparation, to the frying process. Observations showed that most students were able to follow the teacher's instructions well and tried to do each stage as directed. Students worked in small groups, and this helped them to share tasks and learn to work together.
2.	Interaction and Collaboration	This activity encourages intensive interaction between students. They help each other and share tasks, such as peeling carrots, cutting bean sprouts, and folding spring rolls. This collaboration made them feel that everyone has an important role in the success of the final product. It can be seen that students also provide support to each other when facing difficulties in the process, such as when folding the spring roll skin so that it does not leak. This collaboration not only develops social skills,

		but also strengthens the spirit of togetherness in achieving a common goal.
3.	Observations on Carrots and Bean Sprouts	Before the practical activities began, the teacher gave a brief introduction to carrot and bean sprouts plants, including how these plants grow, their life cycle, and their nutritional benefits. Through this explanation, students better understand the life cycle of plants from seeds to ready-to-eat vegetables. After the activity, a short interview showed that most students were able to explain the life cycle of plants better. They recognized that bean sprouts come from mung bean seeds and undergo a typical growth process, while carrots grow as edible roots.
4.	Understanding of nutritional benefits	In addition to understanding plant growth, students also realize the importance of vegetables for health. Carrots, which are rich in vitamin A, and bean sprouts, which contain vitamin C and fiber, are interesting teaching materials for them. This knowledge makes students appreciate the importance of vegetables in their daily diet. Through this practice, they not only learn the theory about plants but also connect it with the real benefits they feel.
5.	Understanding of Production and Entrepreneurship	During the spring roll production process, students learned about the importance of planning in making products. They understand that every ingredient must be prepared in advance and there must be a sequence in the manufacturing process. This is an important lesson for students about the production workflow in a simple business. By being directly involved in this process, students also learn that every step in production affects the quality of the final product. From this activity, they not only learn to make food, but also experience how to be a small entrepreneur with their own products. Through this activity, students also learn that being an entrepreneur requires cooperation, accuracy and creativity. They see firsthand that spring rolls made with their own efforts have selling value, and they can feel their own satisfaction when they see the results of their hard work. The experience of making and selling spring rolls not only trains basic entrepreneurial skills, but also builds confidence and responsibility in them from an early age.
6.	Creativity in Promotion	Students are invited to think creatively in promoting their spring rolls. The teacher gives examples of simple ways to offer the product to friends in other

		classes or teachers at school. Students are asked to imagine how they would market this product if they actually became spring roll sellers. Some students mentioned that they would like to use social media for promotion, while others proposed the idea of giving discounts or additional decoration to attract buyers. There were also groups that provided “buy three get one” and “buy three get mineral water” bonuses. This activity provided hands-on experience in marketing basics and encouraged students' creativity in developing ideas in creating promotions.
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The results showed that the creative entrepreneurship learning model through carrot bean sprout spring roll innovation was effective in improving students' understanding of science materials and basic entrepreneurial skills. Students' active participation in practical activities shows that practice-based learning methods can increase students' involvement in the learning process. The interaction and collaboration that occur during the activities also show that students can work well together in groups, which is an important skill in the world of entrepreneurship.

The observations about carrots and bean sprouts and the understanding of nutritional benefits show that students can connect the theories they learn with real applications in daily life. This shows that practice-based learning can help students understand science concepts better.

The understanding of production and entrepreneurship shows that students can learn about production workflow and the importance of planning in making products. Hands-on experience in making and selling spring rolls also helps students understand the basic concepts of entrepreneurship and build their confidence. Creativity in promotion shows that students can think creatively in marketing their products. This shows that practical activities can encourage students to develop creative ideas in the business world.

Overall, the results of this study indicate that the creative entrepreneurship learning model through the innovation of carrot bean sprout spring rolls can be an effective educational tool in learning science and entrepreneurship in elementary schools. This activity not only improves students' understanding of science materials, but also helps them develop basic entrepreneurial skills and creativity in promoting products.

CONCLUSION

This research shows that the creative entrepreneurship learning model through carrot bean sprout spring roll innovation is effective in improving students' understanding of science materials and basic entrepreneurship skills. The spring roll making activity not only increases students' involvement in the learning process, but also encourages students' interaction, collaboration and creativity. Students can connect the theories they learn with real applications in daily life, understand the production workflow, and develop creative ideas in promoting their products.

Through this activity, students learn to appreciate local wisdom and understand the health benefits of traditional foods. They also gain hands-on experience in the world of entrepreneurship, which helps build confidence and responsibility from an early age. Overall, this learning model can be an effective educational tool in learning science and entrepreneurship in elementary schools, and enrich students' understanding of science and entrepreneurship concepts.

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ISSN (Online): 2988-7100

Vol. 02, No. 02, November 2024, Page. 66-74

Available Online at <https://journal2.upgris.ac.id/index.php/schola/>

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