



## Entrepreneurship Teaching Materials Based on Cultural Wisdom: Its Impact on Entrepreneurial Creativity of Undergraduate Students

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### Abstract

This study investigated the effectiveness of local cultural wisdom-based entrepreneurship teaching materials in enhancing students' entrepreneurial creativity, focusing on two main variables: creative thinking skills and motivation. The research employed a quasi-experimental design with pre-test and post-test control groups, involving 180 undergraduate students from three universities in Indonesia. The findings reveal a significant improvement in creative thinking skills in the experimental group, with N-Gain scores in the "moderate" category (0.45-0.56) compared to the control group ("low" category, 0.21-0.29). Additionally, students in the experimental group demonstrated higher motivation levels, reflected in increased interest and confidence in entrepreneurship, as evidenced by higher average scores across various motivational indicators. These results align with the Creative Cognition Theory and the Self-Determination Theory, suggesting that culturally relevant teaching materials foster deeper emotional engagement, enhance creativity, and motivate learning. The study underscores the strategic role of integrating local cultural elements in entrepreneurship education to nurture creative, innovative young entrepreneurs while preserving cultural heritage and strengthening national identity.

**Keywords:** *Creativity Thinking; Cultural Wisdom; Entrepreneurial Creativity; Students' Motivation; Teaching Materials*

### Introduction

Economic problems in Indonesia are still colored by various complex challenges, such as high unemployment rates (Muin, 2020), income disparities (Aginta et al., 2023), and dependence on certain economic sectors such as agriculture (Sofiyuddin et al., 2021) and mining (Purnomo et al., 2021). In addition, there are still fundamental problems related to the quality of education and low innovation in creating new jobs (Indrawati & Kuncoro, 2021). Amid these dynamics, entrepreneurship has emerged as a potential solution to overcome these various economic problems. Entrepreneurship can not only open up new job opportunities but also drive economic growth through innovation and creativity, especially if developed from a young age (B. Surya et al., 2021).

Entrepreneurial creativity is very important to have since college because this is the right time for students to develop a creative and innovative mindset. Higher education that emphasizes the development of entrepreneurship can encourage students to dare to take risks, think critically, and adapt quickly to market changes (Blesia et al., 2021). Students who are equipped with these skills will be better prepared to create new businesses that can fill untapped market gaps, especially in the context of the creative economy (Ghafar, 2020). Thus, universities need to play a strategic role in facilitating the development of entrepreneurship through relevant and contextual teaching materials.

On the other hand, local cultural wisdom has its market in the economy (Kurnia et al., 2022). Many creative economy products in Indonesia are based on local wisdom, such as handicrafts (Yuniarta et al., 2020), traditional cuisine (Abas et al., 2022), and fashion with regional motifs (Agus et al., 2021). This market is not only attractive to local consumers but also has great potential to penetrate the global market (Putri et al., 2021). By integrating local cultural elements into creative products, business actors can create added value and uniqueness that are difficult for foreign competitors to imitate. Therefore, a deep understanding of local culture is a valuable asset for entrepreneurs who want to succeed in the creative industry.

To support this, the development of creative economy entrepreneurship teaching materials based on local cultural wisdom is very relevant. Learning materials that combine entrepreneurial concepts with local cultural wisdom can equip students with more contextual and applicable knowledge and skills (Charrón Vías & Rivera-Cruz, 2020). By understanding how to develop products rooted in local culture, students can create businesses that are not only highly competitive but also contribute to cultural preservation (Kausar et al., 2024) and strengthen national identity (Zhang et al., 2020).

Several studies have examined the use of local culture-based entrepreneurship teaching materials to support the learning process. Susanti et al. (2021) used Local Culture Based Instructional Materials to improve student character, while Darong (2022) tested the effectiveness of local culture-based teaching materials in improving student reading achievement in Indonesia. In addition, Nasution et al. (2020) also conducted research on local culture-based teaching materials and found that these materials were effective in improving student learning outcomes.

From the several studies above, it can be seen that the use of local culture-based teaching materials has been widely used in the learning process for various purposes, such as improving student character, academic achievement, and learning outcomes. However, until now there has been no research that specifically utilizes local culture-based teaching materials to improve entrepreneurial creativity, especially among students. Therefore, the purpose of this study is to fill this gap by developing and testing the effectiveness of entrepreneurship teaching materials based on local cultural wisdom in improving students' entrepreneurial creativity. This study is expected to provide a significant contribution to the development of more relevant and contextual entrepreneurship education, as well as encourage the creation of creative and innovative young entrepreneurs.

## **Method**

### **Research Design**

This study used a quantitative research method with a quasi-experimental approach, which adopts the Matching-Only Pretest-Posttest Control Group Design. This design involved two groups, namely the experimental group and the control group, which were selected based on similar characteristics to minimize bias (Bulus, 2021). Both groups will be given an initial test (pretest) before being given different treatments, where the experimental group will receive local culture-based entrepreneurship teaching materials, while the control group will not. After the intervention period, both groups will be given a final test (posttest) to measure changes and the effectiveness of the teaching materials in improving students' entrepreneurial creativity.

## Population and Sample

The sample of this study consisted of 180 undergraduate students taken from three universities in Indonesia, both state and private. Of these, 90 students were placed in the experimental group and 90 students in the control group. This division was carried out to ensure a clear comparison between the group that received intervention treatment using local culture-based teaching materials and the group that did not. With a balanced number of samples between the two groups, it is hoped that this study can provide representative and valid results regarding the impact of teaching materials on students' entrepreneurial creativity.

## Data Collection Instruments

In this study, entrepreneurial creativity is measured through two main variables, namely creative thinking skills and motivation. To collect data on creative thinking skills, a case study test instrument is used to measure students' innovative and creative thinking abilities. Meanwhile, to measure the level of student motivation, a questionnaire sheet containing a series of questions is used to evaluate their drive and interest in entrepreneurship. This questionnaire sheet uses a 5-choice Likert scale, namely "strongly disagree", "disagree", "neutral", "agree", and "strongly agree". The use of these two instruments aims to provide a comprehensive picture of the factors that influence students' entrepreneurial creativity in the context of this study.

## Data Analysis

In this study, data were analyzed using the N-Gain method to evaluate changes in the variables of students' creative thinking skills and motivation. The N-Gain method allows researchers to measure the relative increase from pretest to posttest results, providing a clear indication of how effective the intervention implemented was in improving both variables (A. Surya et al., 2020). By comparing pretest and posttest scores, this analysis will identify the extent to which local culture-based teaching materials contribute to improving students' entrepreneurial creativity, both in terms of their creative thinking skills and their motivation towards entrepreneurship.

## Result and Discussion

### Students' Creative Thinking Skills

Undergraduate students' creative thinking skills include their ability to generate innovative ideas, solve problems creatively, and think outside the box to find unconventional solutions. Table 1 shows the results of the pre-test and post-test measuring students' creative thinking skills before and after the implementation of local culture-based entrepreneurship teaching materials.

Table 1. The results of the pre-test and post-test

University	Group	Pre-test	Post-test	N-Gain	Information
University A	Experiment	54.21	75.65	0.47	Medium
	Control	56.75	69.32	0.29	Low
University B	Experiment	53.56	79.68	0.56	Medium
	Control	49.98	60.54	0.21	Low
University C	Experiment	52.13	73.70	0.45	Medium
	Control	56.87	67.43	0.24	Low

This study evaluated students' creative thinking skills in the context of entrepreneurship at three universities using pre-test and post-test. The results showed that the experimental group at all three universities experienced a more significant increase than the control group. Universities A and C showed an increase with an N-Gain in the "moderate" category, of 0.47 and 0.45, respectively, while University B had the highest increase with an N-Gain of 0.56 (moderate category). In contrast, the control group at all

three universities only reached the "low" category with an N-Gain ranging from 0.21 to 0.29. These data indicate that the intervention given to the experimental group was effective in improving students' creative thinking skills in entrepreneurship.

### Students' Motivation

Student motivation is the internal and external drive that drives them to engage in entrepreneurial activities, including their interest in developing business ideas, resilience in facing challenges, and commitment to achieving entrepreneurial goals. Table 2 presents the results of the questionnaire related to undergraduate students' motivation in entrepreneurship.

Table 2. The result of the student's motivation questionnaire

No.	Indicator	Results	
		Experiment Class	Control Class
Entrepreneurial Motivation			
1	I feel more motivated to pursue entrepreneurship after taking this course.	4.51	3.96
2	This learning increased my desire to start or develop a business idea.	4.46	4.12
Understanding and Application			
1	I understand the concepts and principles of entrepreneurship better after taking this course.	4.21	3.82
2	I feel I can apply the entrepreneurial knowledge learned in my business plan or idea.	4.50	4.07
Impact of Learning			
1	This learning increased my confidence in running a business.	4.48	4.12
2	This learning material is relevant to my entrepreneurial interests and goals.	4.31	3.67
Skills and Support			
1	I feel more confident in using entrepreneurial skills after taking this course.	4.22	3.57
2	I felt that I needed additional support to implement my business idea after this learning.	4.15	3.65

The results of the student motivation questionnaire showed a significant difference between the experimental class and the control class after taking the entrepreneurship course. This data provides in-depth insight into the effectiveness of learning in improving entrepreneurial motivation and understanding.

The results of the entrepreneurial motivation aspect showed that the experimental class felt more motivated to pursue entrepreneurship with an average score of 4.51, compared to the control class which recorded a score of 3.96. This difference indicates that the learning materials applied in the experimental class were more successful in triggering students' interest in starting or developing their business ideas. In addition, the desire to start or develop a business idea was also higher in the experimental class with a score of 4.46 compared to 4.12 in the control class, indicating that the cultural wisdom-based learning approach applied was more effective in increasing this motivation.

In terms of understanding and application, the experimental class also showed better results. Students in the experimental class scored 4.21 in understanding the concepts and principles of entrepreneurship, while the control class only scored 3.82. This indicates that the course taught in the

experimental class provided a deeper understanding of entrepreneurship. In addition, confidence in applying entrepreneurial knowledge to business plans was higher in the experimental class (4.50) compared to the control class (4.07), indicating that the teaching materials in the experimental class were more effective in facilitating the application of this knowledge.

The impact of learning was also more pronounced in the experimental class. With a score of 4.48 for confidence in running a business, the experimental class surpassed the control class which recorded a score of 4.12. This indicates that the learning materials in the experimental class were more successful in increasing students' confidence in running a business. The relevance of the learning materials to entrepreneurial interests and goals was also higher in the experimental class (4.31) compared to the control class (3.67), indicating that this course was more in line with the aspirations of students in the experimental class.

In terms of skills and support, the experimental class showed higher confidence in using entrepreneurial skills with a score of 4.22, while the control class only achieved a score of 3.57. This indicates that learning in the experimental class was more successful in building students' confidence in entrepreneurial skills. However, the need for additional support to implement business ideas still exists in both classes, although the experimental class (4.15) recorded a higher score compared to the control class (3.65). This indicates that students in the experimental class feel more prepared but still need further support.

## **Discussion**

This study explores the impact of cultural wisdom-based entrepreneurship teaching materials on Entrepreneurial Creativity which consists of two variables, namely students' creative thinking skills and their learning motivation in the context of entrepreneurship. The results of the study indicate that the integration of local cultural elements into teaching materials can significantly improve both variables.

### **Students' Creative Thinking Skills**

The use of cultural wisdom-based entrepreneurship teaching materials has been proven effective in improving students' creative thinking skills. Creative thinking skills are an important element in entrepreneurship because they enable individuals to find innovative solutions and create new opportunities in a competitive market (Anjum et al., 2020; Durnali et al., 2023). This study found that students who engaged with teaching materials that included local cultural elements showed greater improvements in their ability to think out of the box, develop original ideas, and adapt to changing situations.

This finding is consistent with the Creative Cognition theory which states that creativity can be influenced by a learning context that is rich in unique and diverse experiences, including cultural experiences (Gerver et al., 2023; Pinkow, 2023). Through cultural-based teaching materials, students are more inspired to explore new ideas that are appropriate to their local context. In addition, Vygotsky's (2004) constructivist learning theory also supports these results, where learning that involves socio-cultural contexts can enrich interactions and collaborations between students, encourage the exchange of ideas, and ultimately improve creative thinking skills.

Previous studies also emphasized that learning that is adapted to the local cultural context can provide additional motivation for students to think creatively because they feel more emotionally connected to the material being studied (Fischer, 2020; Hang & Van, 2020; Patston et al., 2021). In this context, local cultural wisdom functions as a catalyst that stimulates creativity through a deep understanding of local traditions, norms, and values that are relevant to the world of entrepreneurship.

## Students' Motivation

This study also found that cultural wisdom-based teaching materials have a significant positive impact on students' learning motivation. Learning motivation is defined as an internal drive that influences the intensity, direction, and persistence of pursuing learning goals (Wardani et al., 2020). By using culturally-based teaching materials, students feel more emotionally connected and have a greater interest in entrepreneurship learning.

These results are in line with the Self-Determination theory which emphasizes that intrinsic motivation increases when individuals feel an emotional connection and personal relevance to what is being learned (Gagné et al., 2022; Ryan & Deci, 2024). In this context, teaching materials that include local cultural elements provide a familiar and relevant context for students, so they feel more enthusiastic about learning and developing themselves.

A study by Hidayati et al. (2020), Ramdiah et al. (2020), Lubis et al. (2022), and Kusmana et al. (2020), supports this finding by showing that culturally relevant learning can increase intrinsic interest and learning motivation because students feel valued and recognized for their cultural identity. Thus, cultural wisdom-based teaching materials not only promote a deeper understanding of entrepreneurship but also build students' sense of pride and involvement in the learning process.

Furthermore, this study indicates that increased learning motivation also contributes to improved overall learning outcomes (Yu et al., 2021). Motivated students tend to be more active in learning activities, more willing to take risks, and more persistent in overcoming entrepreneurial challenges (Meece, 2023). In this regard, cultural wisdom-based teaching materials provide a strong foundation for building a generation of creative and motivated entrepreneurs.

## Conclusion

This study shows that cultural wisdom-based entrepreneurship teaching materials have a significant impact on improving undergraduate students' entrepreneurial creativity, as measured by their creative thinking skills and learning motivation. The results of this study underline that the integration of local cultural elements into teaching materials not only enriches learning content but also effectively improves students' creative thinking skills and motivation in the context of entrepreneurship.

First, cultural wisdom-based teaching materials have been proven effective in improving students' creative thinking skills. Based on pre-test and post-test data, the experimental groups in three universities showed a significant increase in creative thinking skills compared to the control group, with N-Gain in the "moderate" category (0.45-0.56), while the control group only reached the "low" category (0.21-0.29). This increase indicates that local culture-based teaching can facilitate students in generating innovative ideas and creative solutions that are important in entrepreneurship.

Second, in terms of learning motivation, students in the experimental class also showed a significant increase compared to the control class. The questionnaire results showed that students in the experimental class felt more motivated to pursue entrepreneurship, had a higher desire to start or develop a business idea, and were more confident in applying their entrepreneurial knowledge. This was supported by higher scores on all indicators of motivation, understanding, learning impact, and skills and support in the experimental class compared to the control class. These findings confirm the effectiveness of the cultural wisdom-based learning approach in increasing students' intrinsic motivation to learn and develop themselves in the field of entrepreneurship.

Then, this research is very relevant for educators and policymakers in the field of entrepreneurship education. Integration of local cultural wisdom in teaching materials can be used as an effective learning strategy to improve students' creative thinking skills and learning motivation. By

providing a learning context that is closer and more relevant to students' cultural experiences, they feel more emotionally connected and encouraged to actively participate in the learning process. This can facilitate the formation of a generation of creative, innovative, and motivated entrepreneurs. Therefore, the application of teaching materials based on cultural wisdom is expected to be adopted more widely in the entrepreneurship curriculum to achieve better educational goals that are relevant to the local context.

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