



## Entrepreneurship Teaching : Design and Activities of 21<sup>st</sup> Century Learning for Economic Class under Mini-Project (Participatory-Phenomenological Design)

**Muh. Fahrurrozi**

Faculty of Social Sciences and Economics, Universitas Hamzanwadi, Indonesia.

\*Corresponding Author. Email: [fahrurrozi@hamzanwadi.ac.id](mailto:fahrurrozi@hamzanwadi.ac.id)

**Abstract:** This study aims to explain the process of teaching entrepreneurship education courses in economics classes under a detailed mini-project. This research used Participatory action research (PAR) under qualitative approach. The sample size was only taken purposefully from one semester's three economics classes. This research used observation sheets in the form of learning activities and interviews. All data collected were analyzed descriptively with the step of reducing, displaying and drawing conclusion. The research results showed the effectiveness of a bidirectional teaching model in entrepreneurship education. This model, which combines theoretical instruction with practical application, significantly enhances student engagement and learning outcomes. The bidirectional approach allows students to relate theoretical concepts to real-world examples, fostering a deeper understanding and active participation. An essential element of this teaching model is the inclusion of mini-projects. These projects enable students to apply theoretical knowledge in practical scenarios, such as developing business plans and analyzing recruitment strategies. The hands-on experience gained through mini-projects not only solidifies students' grasp of the material but also hones their problem-solving and critical-thinking skills. The study's findings underscore the superiority of the bidirectional teaching model over traditional methods. The experimental class, which utilized this approach, showed a 93% success rate in meeting various evaluation criteria, compared to just 30% in the control class. This stark contrast highlights the importance of integrating mini-projects and practical activities into the curriculum to enhance educational outcomes. The bidirectional teaching model, complemented by mini-projects, proves to be a highly effective approach in entrepreneurship education. It not only engages students more deeply but also equips them with practical skills and knowledge that are essential for their future careers.

### Article History

Received: 13-03-2024

Revised: 19-04-2024

Accepted: 29-05-2024

Published: 22-06-2024

### Key Words:

Entrepreneurship  
Education; 21st Century  
Learning; Learning  
Activities; Mini-Project.

**How to Cite:** Fahrurrozi, M. (2024). Entrepreneurship Teaching : Design and Activities of 21st Century Learning for Economic Class under Mini-Project (Participatory-Phenomenological Design). *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, 10(2), 704-717. doi:<https://doi.org/10.33394/jk.v10i2.11063>



<https://doi.org/10.33394/jk.v10i2.11063>

This is an open-access article under the [CC-BY-SA License](https://creativecommons.org/licenses/by-sa/4.0/).



## Introduction

The world of education, which is growing because of technology (Darmawati, 2023; Han, 2023; Johnson & Meder, 2024; X. Liu & Zhang, 2024; Wu et al., 2023; Yang & Su, 2022), opens up space for thinking creativity (Yao et al., 2024). The intensity of lecturers filling the class must be followed by their ability to adapt life skills (Varas et al., 2023), such as mastery of technology tools (Ahmed Alismail, 2023). Mastery of technology as a 21st-century teaching identity (Lavi et al., 2021; Teo, 2019) shifts conventional culture to digital and impacts fields such as economics and entrepreneurship. The entrepreneurial teaching model for the 21st century must accommodate the rapid dynamics of economic, technological, and social change. For example, the global economy is increasingly connected, technology is evolving rapidly, and job market demands are changing significantly. Anticipation of competitors in the work environment must be understood as a challenge, and

**Jurnal Kependidikan** Vol. 10, No. 2 (June 2024)



the teaching model at the university level must be of special attention to both lecturers and curriculum drafting teams. In this context, entrepreneurial teaching models should be innovative, focused on practical learning, and build relevant skills to face future challenges. The entrepreneurship course must be a design locomotive starting from the university (Pratama et al., 2019) because entrepreneurship is the determinant of the national economy (Anggresta et al., 2022).

21st-century entrepreneurship education needs to integrate technology through digital. Entrepreneurship is a demanding subject at the university level (Hermanto et al., 2022), and lecturers should be encouraged (Wahyuningsih, 2020). Students need to understand the role of technology in business, including e-commerce, data analytics, digital marketing, and technological innovation. Using online learning platforms, digital business simulations, and collaborative tools can increase student engagement and teach them how to leverage technology to business advantage. Students must be involved in real projects, such as developing a business plan, launching a product or service, or participating in a business competition. This project helps them develop practical skills, creativity, and the ability to work together. Entrepreneurship is no longer limited to one discipline that teaches a set of concepts, but entrepreneurship is cross-cutting that can change the attitude and mindset (Fatimah et al., 2020). The teaching model of 21st-century entrepreneurship should be interdisciplinary, combining elements from different fields of study such as technology, art, social sciences, and natural sciences. This reflects the complexity of modern business, which requires a broader and holistic understanding, one of which is due to the technological disruption that led to innovation (Harwiki, 2019).

Learning styles in this global time have changed (Adha & Permatasari, 2021; Dhini Suryandari, Retnoningrum Hidayah, Sukirman, Niswah Baroroh, 2021) both although not yet radical and evenly distributed. The transformation of education has occurred in almost all areas (H. A. Hasan, 2020; Pormes, 2021), including entrepreneurship. Today's entrepreneurship teaching is often only completed in reference books that expose heaps of theory. Adopting this kind of learning is not wrong because science needs a strong thinking foundation. Several corrections then appeared to provide input that theory-based learning causes boredom. Interaction is necessary as creativity can be created by exchanging ideas and involving subjects and learning objects (Wathoni & Basri, 2021). Students may be less motivated because entrepreneurship often requires high initiative and courage. There is a gap between the theory taught in class and business reality. Students have difficulty relating theoretical concepts to their application in real situations. This can trigger student productivity, leading to disinterest in studying entrepreneurship. Another reason is industry involvement in learning design.

Entrepreneurship often demands creativity and innovation (Asholikha & Nugraha, 2021). This is possible if students get integrative courses that combine theory and practice to implement the theory studied. If the curriculum focuses too much on theoretical and administrative aspects, this can reduce space for developing students' creative skills. Ideally, the teaching practice of entrepreneurship should be connected to industry and taught sustainably (Rifa'i, 2019). The global phenomenon places entrepreneurship as an essential and instrumental subject (Mahary, Azizah; Siregar Huspa, 2022), even though teachers do not fully understand how to apply it.

Several alternatives are considered adequate in answering the problem of teaching entrepreneurship. First, the curriculum must position itself as a medium for developing quality education. The present curriculum develops practical business planning, marketing, and financial management skills. Challenges can arise if the curriculum pays less attention to



developing these skills. The focus of learning at its core is how theory is understood and then translated into practice. This is seen in the opening of entrepreneurship training by related institutions (Budi & Fensi, 2018). This means that a curriculum favoring market needs has positive implications for students' readiness for work despite entrepreneurship not receiving serious attention among teenagers (Lies Sunarmintyastuti et al., 2020). Learning methods are no longer textbook-oriented in the classroom. Learning should provide an intact space for practice. Internships or field practices are technical solutions to current learning problems. The entrepreneurship teaching model must emphasize developing life skills (M. Hasan et al., 2021). Effective communication, leadership, collaboration, and problem-solving skills are becoming critical in an ever-changing business environment. Students must learn to adapt to change and work together in cross-disciplinary teams. This can be done only by direct practice to the industry. The actual working atmosphere provides a broad view and great learning. Therefore, the teaching model of 21st-century entrepreneurship must include a strong mentorship program. They engage successful professionals and entrepreneurs as mentors, giving students access to practical insights, experience, and networks that can help them on their entrepreneurial journey.

Research relevant to entrepreneurship has received much attention from scholars (Fassbender et al., 2022; Haneberg et al., 2022; M. Liu et al., 2022; Martin & Iucu, 2014; Siano et al., 2024). The literature reviews many similarities with the topics raised in this paper. It was found that research studies talk a lot about teaching. The scope of research studies on entrepreneurship describes how specific methods teach entrepreneurship. Methodologically, they tend to use case studies from school settings as a type of research discussing entrepreneurial issues. Similar research has also been practiced by (Al-Atabi & Deboer, 2014; Mosey, 2016; Rafael & José, 2013), who adopted the same teaching design (Classroom research). The second similarity is that the majority of instruments are used in collecting data.

Existing research, such as (Siano et al., 2024), explains their research only on how he teaches entrepreneurship through analytical mapping of loss of brand control. They did not describe in detail the stages of teaching implementation as proposed by this study. Other studies also explain something different. Senali et al.'s (2022) research focused on improving students' understanding of flipped learning in entrepreneurship. Methodologically, they are not the same. The systematic literature review approach is used to analyze articles that examine flipped learning and explore the challenges of learners and instructors to the method in the future. Almost the same research was reviewed by (Fassbender et al., 2022). The research is similar in design and learning activities, although it differs in data collection instruments and specific teaching approaches. The similarity of learning activities is described in introductory classroom sessions, group work phases, and presentation and reflection sessions. This learning design is identical to what has been practiced in this research. Regarding methods and activities, Bell & Cui (2023) highlight how Chinese educators are tailoring their curriculum to meet the requirements of progressive entrepreneurship education. Metaphors of knowledge acquisition and participation in their teaching practice are used. This research emphasizes the need to balance traditional and progressive approaches in entrepreneurship education in China.

This analysis then looks at gaps that researchers have not worked on much as a novelty: participatory-phenomenological design that elaborates details about teaching activities and entrepreneurship education under mini-project learning in the university environment. Since entrepreneurship education involves theory and practice, this study seeks to explain how entrepreneurship courses are taught under a mini-project at Universitas



Hamzanwadi for one semester as compulsory courses in the Department of Economic Education for the 2023/2024 academic year.

## Research Method

Participatory action research (PAR) under qualitative approach is a research design applied to explain a series of entrepreneurial lecture activities at the Faculty of Social and Economic Sciences Universitas Hamzanwadi. Because this study highlights holistic learning activities, PAR is the right research design because it can answer the research variables formulated. There was peer involvement in recording the course of lectures, learning activity models, lecturer dialogues with students and peers, and making evaluations at the end of the learning process. This point is our reference using PAR according to its characteristics. Active participation involved students as research subjects and peers were discussing and questioning. The planned action cycle includes designing learning activities, planning teaching materials, and using methods and evaluation. In addition, we improve teaching actions and reinforce them through activity reflection at the end of learning sessions.

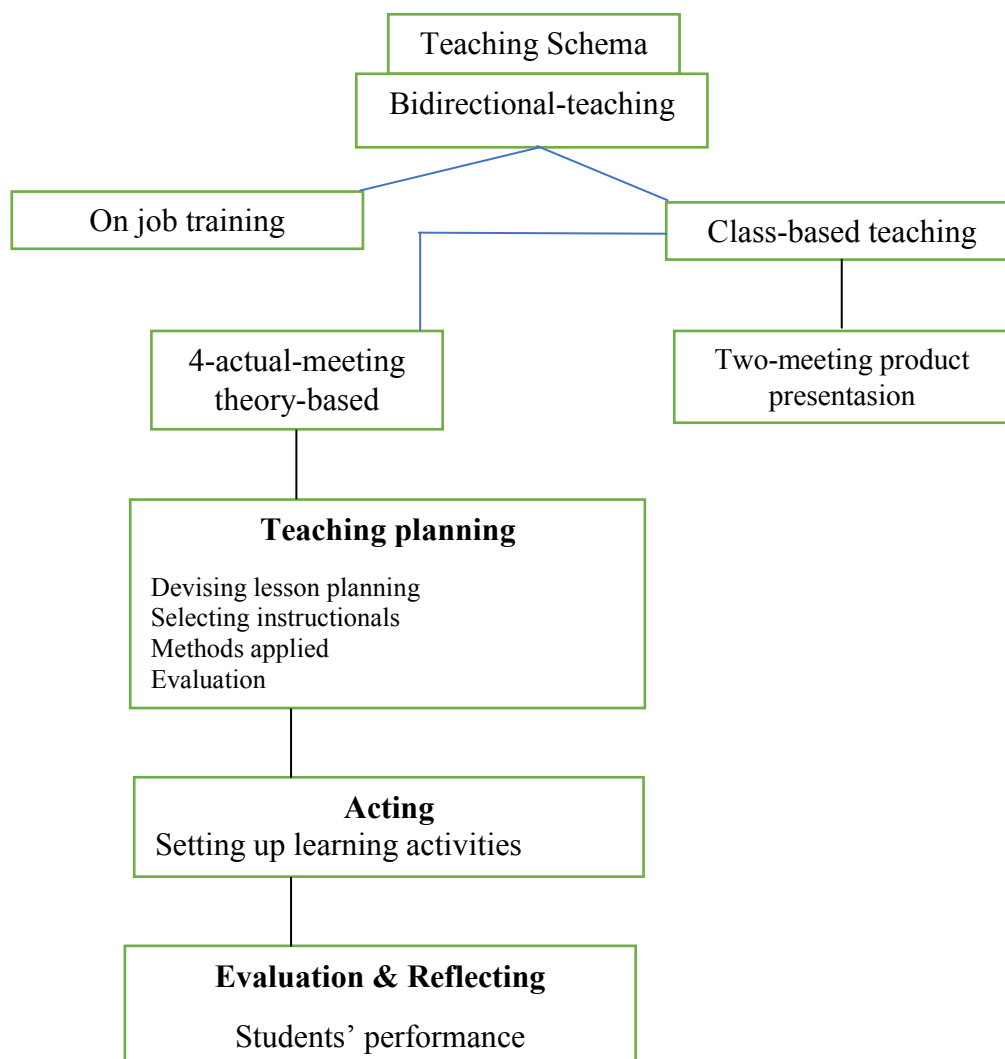
Furthermore, the sample was only selected one class purposely only in economics majors who took entrepreneurship classes in the odd semester of 2023/2024. The sample size was class 3A, totalling 24 students. Due to limited time in data collection, this study focused on summarizing data on four sub-materials: assessing business needs, managing marketing in small businesses, human resource management (HRM), and business planning. Colleagues assisted me in collecting data from observation sheets that recorded the course of entrepreneurship education learning, activities, and interactions, as well as dialogues with several randomly selected students. The interview aims to provide information related to students' views on the learning model of entrepreneurship education and its relevance to market needs. In addition, the teaching and learning process and evaluation in student product presentations are essential to the data analyzed in this study. All data collected through interview are assessed descriptively with the step of reducing, displaying and drawing conclusion.

## Results and Discussion

This research summarizes data presented in phases based on weekly meetings for a month: Week 1, week 2, week 3, and week 4. From the accumulation of semester meetings, this study only collected and reported data from the teaching and learning process for 6 out of 16 compulsory meetings in one semester in the academic calendar. Because the lecturing pattern adopts a bidirectional teaching system (theory-based and job training-based), all meetings that require field practice are not included in the data processing. The processed data applies to the theory-based teaching model, explaining a series of teaching topics containing comprehensive entrepreneurship knowledge.

### 1) Learning plans and preparation

The first meeting will be held on October 30, 2023. Lecturers in the semester learning plan prepare all teaching preparation. Lecturers and colleagues discuss teaching equipment, such as collecting and selecting relevant teaching materials, formulating goals and achievement targets, and determining how learning activities are delivered. In the implementation stage, lecturers design student learning activities. Selection of learning methods, arranging instruments, and making evaluation signs.



**Figure 1. Participatory acting research teaching design**

With four language topics, the learning scheme was designed for six meetings. The first meeting discussed assessing business needs. The one-way teaching learning pattern introduces the material and explains the target achievement of delivering the lecture material. A lecture is a method combined with questions and answers in the final session of the meeting. Lecturers prepare all teaching materials through power points; Teaching media display material through projector spotlights. In the second week, the learning continued with discussions on managing small business marketing. This meeting designed a group work discussion model that allows students to exchange information about readings provided by lecturers. This model is complemented by a group presentation of what is read. Lecturers and colleagues have provided observation sheets to record the course of the learning process. Occasionally, the lecturer makes notes on a blank sheet, noting which points are reinforced during the discussion session. In the third meeting, lecturers prepared thematic teaching materials on human resource management sub-materials. Students are required to work independently. In addition, lecturers prepare assessment sheets on the results of student analysis of a company recruitment phenomenon discussed. The lecturer also opens a space for students to account for the results of their studies in front of the class. Next, at meeting four, they learned business planning. In the lesson implementation plan, the lecturer prepares business plan concepts, examples of business ideas and calculations, and provides potential



business ideas in the market. Designing a business as a group is included in the lesson implementation plan for the final two meetings: meetings five and six.

## 2) Implementation of learning

### First and second weeks

The learning implementation process has been running under the guidance of the semester implementation plan. During the first week, students are given a general understanding of assessing business needs. This material contains the basic concepts of business, raw materials, substitution, and markets. In the first phase, the lecturer displayed the phrase business needs through a screen displayed through the projector. This pre-activity was quite successful because most students seemed eager to attend lectures. Before entering the core material, lecturers explored the student's understanding by guessing the material's content to be discussed at the first meeting. Almost all students responded by providing answers that were following learning planning.

The lecturer then entered the core stage of learning. Students were given several points related to business needs. In the meeting, the lecturer first explained about the product idea. The lecturer emphasized why entrepreneurs should prioritize the product concept when building a business. The lecturer then gave several examples of current product ideas, such as Yakult products for the health campaign. Yakult products target buyer psychology and market purchasing power, affordability, and health.

Another example is plastic raincoat products that target seasonal but cheap consumers. The example above is explained in sequence so that students often ask directly when the lecturer explains without waiting for the lecturer to finish explaining. The following is the narration of one HS student.

"I like the way the lecturers deliver the material. The material is real and contextual. Maybe not only do I feel how the learning process is, but other students will also take the same view."

During two one-hour lessons, students learn how to build a rational business. The importance of raw material considerations in creating a business is elaborated. The learning process gets a two-way response. Some students asked questions. For example

Q1: What special considerations should be taken as the first step in selecting raw materials?

Q2: What should be done if raw materials for products are scarce? Is the scarcity of raw materials at risk of bankruptcy?

The lecturer explained various responses. In the first question, the lecturer explained that the selection of raw materials must also consider the ease of accessing substitutions. If traditional specialities for food fermentation are produced using moringa raw materials, other alternatives, such as *turi* leaves, can be easily obtained. This strategy allows entrepreneurs to survive competitors. Limited access to certain raw materials often reduces the smooth running of the business and can cause variable costs to purchase these raw materials to become dependent. The lecturer also explained the second answer concisely and acceptably. The second question is relevant to the first answer regarding scarcity.

In the third session of the learning process, lecturers ask students some questions. The lecturer only asks one question and then asks students to give responses to the questions. Our observations conclude that student involvement is very high in the learning process. This indicator is recorded from the number of students who raise their hands and are willing to answer the lecturer's questions. Students take turns responding to answers with their points of view. Answer variance is appreciated by lecturers while enjoying good answers and correcting and reinforcing incorrect answers.



In the closing phase, the lecturer repeats the explanation. Students are reminded that the upcoming week's meeting will outline advanced material with a pattern of critical discussion of problem pieces from journal articles.

The same is done in the second week. The lecturer began to open the class by asking about news and family. Students are invited to chat while lecturers are seen preparing teaching materials via laptops. The warming-up process lasts approximately 7 minutes and displays teaching materials. The lecturer glorified the core class by mentioning the previous material about business needs, which previously explained raw materials and markets.

The core class takes a cursory look at the market this second week. The lecturer then instructed students to work in groups to discuss marketing and small businesses. Each group works with five people maximum. They record what is the content of the article. Each group is required to make notes or summaries of what is read. Then, they take turns presenting the results through their respective group leaders. The group learning model allows students to exchange ideas, gather ideas, unite opinions, and work in teams. In addition, group discussions can provide confidence, for example, in outcome accountability sessions.

Learning activities in the second week went very well. Students have presented the results of the article review with great confidence. Some students seemed to respond more to what other groups conveyed as part of improvement. The lecturer appreciated the activity. Almost all students took part in the discussion after the presentation. Questions and answers about the material were also conducted. At a particular moment, the lecturer throws student questions at other students before answering them. This model is very communicative, considering that knowledge and ideas do not have to be centralized on lecturers.

### **Third and fourth weeks**

The third and fourth weeks have been conducted using a case study approach. Some materials lecturers select are from several resources, such as scientific books and articles. In the human resource management material, students are asked to work in groups again to discuss cases in the form of surveys on employee recruitment in certain companies. Students are faced with the same case. In certain companies, the human resource department recruits employees with six criteria: honesty, competence, vision, intelligence, friendliness, and diligence. Students are instructed to rank one to three from predetermined criteria. They are tasked with choosing three main criteria in deciding who to hire. The student's task is to be accountable for the requirements made by the presidential director with logical arguments.

This practical activity spurred student enthusiasm. Students seem happy with their learning activities. Here's an excerpt from an interview with one of the students.

"I like this learning activity. We are challenged to think logically and selectively. Sometimes, we are confused about which one we should take because the criteria given by the lecturer are quite similar, and all make sense. But we still have to choose. This course material is very suitable in the field, I think because we have to make the right and best decisions."

The exact phrase was explained by one of the economics students.

"Learning entrepreneurship is exciting. The material is real. We learn through problems and can be witnessed. Rarely are we given abstract material. This means that the material presented is very related to the needs we want to know. That's also why I took up economics: I wanted to be an entrepreneur. But teaching also turned out to be interesting."

There are several similarities in the criteria of group results. Uniquely, honesty always gets the first position from several groups. Their thoughts align with the case that the world's foremost companies, according to surveys of large American companies, concluded that honesty is the main reason the human resource department decides to hire. However, some groups disagree about the criteria. Although different, their logic in arguing is very acceptable.



The fourth week is the last week to discuss teaching material accompanied by practice. Lecturers and students discuss business planning. Independently, students are given a piece of paper to write down their product ideas. Lecturers provide several indicators that must be loaded when building a business. After the process is complete, the lecturer gives product ideas and examples. Business ideas include the type of business, availability of raw materials, budgeting, operational costs, target market, and marketing methods. Students were asked several questions about the example explained by the lecturer. Students seem to enjoy learning. The activeness of students responding to learning through questions indicates that they follow lectures well. At the end of the lesson, students are assigned to make product ideas to be presented in the fifth and sixth weeks.

### 3) Evaluation and reflection

Product presentation is the final form of learning in the fifth and sixth weeks of the entrepreneurship education class. Students are given enough time to present the results of their group work. Here are some assessment indicators that have been formulated to assess student work.

**Table 1. Evaluation**

| No | Evaluation                           |
|----|--------------------------------------|
| 1  | The novelty of product ideas         |
|    | Raw materials and their substitution |
|    | Targeted markets                     |
|    | Product advantages                   |
|    | Partnership                          |
|    | Operating costs                      |
|    | Marketing                            |
| 2  | Presentation flow                    |
|    | Concise and straightforward          |
|    | Student responses                    |

The first group presented spa service products in the campus environment. They elaborated on why the product needs to be available in Lombok Timur district. They elaborated that the spa is a health business innovation that benefits the wider community, including the university environment. This idea is imitated from several countries that make spas a product business in the campus environment. They added that the spa is a profitable venture as we advance. This venture carries the vision that the spa is a good business and is not associated with erotic ones. They added that many spa ventures are successful abroad. In the Lombok Timur district context, spas still do not exist on campus. This product can enter the market and is predicted to survive from the competitor's side. Spas on campus will be welcomed by students, considering 1) students need fitness when facing exams, 2) relieve stress with piles of assignments, and 3) spas can improve concentration and fitness.

The average group presented their product ideas well using the two formulated indicators. In terms of the feasibility of ideas, they offer fresh product ideas. Competitor analysis becomes reasonable and acceptable. For example, student groups explain the logic of their products and how spa product opportunities can survive and grow in the Lombok Timur district. Partnerships that attract students as agents in marketing are considered very appropriate. Business opportunities develop by targeting the primary market of students deemed productive. It is believed that students are a stable and precise market. On this basis, the spa products designed will be able to grow and develop very well in the campus environment.

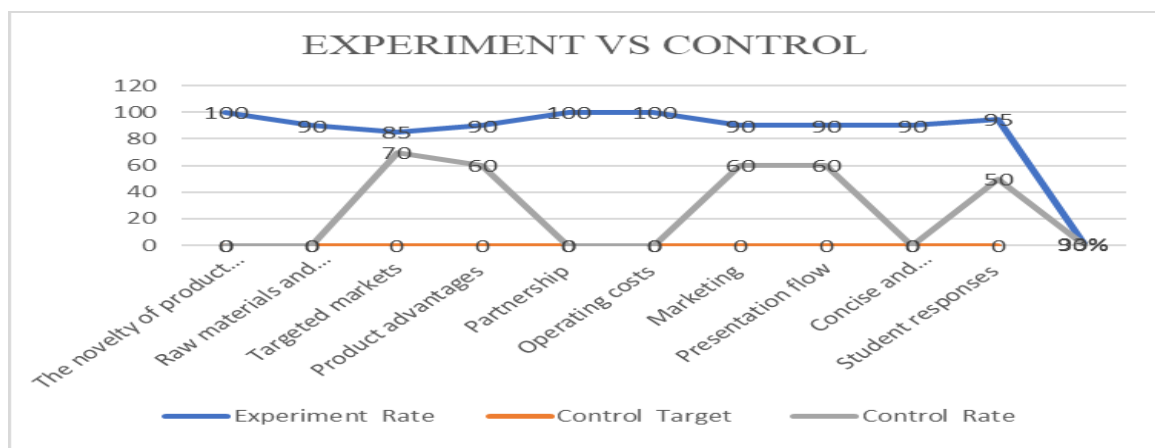




In terms of presentation, students showed superior performance. The observation sheet notes that students are well-prepared to explain their product concepts in class. The audience shows self-confidence with straightforward and acceptable language. This readiness can also be inferred from how the presenter responds to other groups' questions about the product's strength to survive in the market. In experimental classes that have been carried out with the bidirectional teaching model adopting mini projects, it can be seen that students' abilities are more successful than in classes that have not practiced bidirectional teaching. The following compares the learning outcomes of semester 3 students in the economics class in the experimental and control classes.

**Table 2. Experiment and Control Class**

| Evaluation Items         | Experiment                           |             | Control |               |     |
|--------------------------|--------------------------------------|-------------|---------|---------------|-----|
|                          | Target                               | Rate        | Target  | Rate          |     |
| Product content          | The novelty of product ideas         | Implemented | 100     | Unimplemented | 0   |
|                          | Raw materials and their substitution | Implemented | 90      | Unimplemented | 0   |
|                          | Targeted markets                     | Implemented | 85      | Implemented   | 70  |
|                          | Product advantages                   | Implemented | 90      | Implemented   | 60  |
|                          | Partnership                          | Implemented | 100     | Unimplemented | 0   |
|                          | Operating costs                      | Implemented | 100     | Unimplemented | 0   |
| Presentation performance | Marketing                            | Implemented | 90      | Implemented   | 60  |
|                          | Presentation flow                    | Implemented | 90      | Implemented   | 60  |
|                          | Concise and straightforward          | Implemented | 90      | Unimplemented | 0   |
|                          | Student responses                    | Implemented | 95      | Implemented   | 50  |
| Total                    |                                      |             | 93%     |               | 30% |



**Figure 1. Learning evaluation on experiment and control**

There are significant differences in learning outcomes between the experimental and control classes. The ten priority indicators reflect that all indicator targets are met. There are three indicators with a complete weight of 100%, as shown in Tables 1, 5, and 6. The other seven indicators were below 100%, but the evaluation results were significant. This means that student learning outcomes in the semester economics class are categorized positively with the design of the mini project study plan. On the other hand, the control class tells the opposite story. Although only 50% of indicators are touched, economics classes' teaching and learning process is still in the normal category. This conclusion explains that experimental classes using mini-project designs produce more significant results than control classes that do not use them.



## Discussion

Entrepreneurship education in the university environment aims to provide holistic knowledge and facilitate students with the skills and attitudes they need to become successful entrepreneurs. Entrepreneurship is a branch of science that is urgently studied, especially in the context of economics students. The importance of studying entrepreneurship comes from the background that entrepreneurship is an opportunity for students to deepen entrepreneurial concepts, such as business opportunity identification, business planning, marketing strategies, financial management, and risk management. Entrepreneurship is allegedly a milestone in economic growth (Anggresta et al., 2022; Pratama et al., 2019).

In this 21st century, global competition is borderless. Companies from various countries with various products have entered the market without borders. This phenomenon encourages individuals to persevere with their innovations to stand tall from their competitors. Therefore, entrepreneurship education is an essential priority for students and must be long-term and sustainable (Asholikha & Nugraha, 2021). There are several compelling reasons entrepreneurship needs serious attention in the campus environment. First, entrepreneurship trains students to think critically (Nybye & Wraae, 2023) and in practical activities such as case studies, business simulations, and entrepreneurial projects to help them develop the practical skills needed to manage a business (Asholikha & Nugraha, 2021). Increasing competition can displace individuals in seizing significant resources and prosperity. Secondly, entrepreneurship teaching is a practical course that introduces students to the natural business environment through internships. This position will be able to provide space for real learning students as students are currently supplied with digital entrepreneurial competence (Chen & Ifenthaler, 2023).

This research point is how entrepreneurship education is taught to economics students in semester 3 with a mini-project. Lecturers at Universitas Hamzanwadi have stressed the urgency of entrepreneurship as a branch of science. With practical methods, the flow of teaching implementation can create suitable entrepreneurial learning activities for students. Lectures, group discussions, critical analysis of learning resources, and presentation skills are ways lecturers deliver course content well. This learning experience encourages students to be more interested in entrepreneurship courses because they are designed to be practical and applicable. Creativity and innovation in learning have a place, so this condition allows students to think dynamically. They are taught to think outside the box and solve business problems creatively.

Much literature has talked about entrepreneurship and its teaching from previous research (FAHRURROZI et al., 2023; Janowski & Szczepańska – Przekota, 2024; Motta & Galina, 2023; Ozen et al., 2023; Tiberius et al., 2023). Although previous studies did not discuss the application of entrepreneurship teaching with a mini-project in detail, the results can at least be a reference for researchers afterwards. In this study, many vital notes. First, the variety of learning activities can be an example to other teachers. The choice of learning methods that are not monotonous with various learning activities received a positive response among students. This study used more than one learning model. This practice reduces student boredom because of the offer of color in learning. Success in the design of learning activities has resulted in productive learning activities. Communication skills, for example, are given space. Students are taught to compose effective business presentations, communicate clearly, and build good interpersonal relationships.

This research is related to what has been researched before about entrepreneurship. Referencing research indicates relatively similar results, although differences exist in data analysis methods, activities, and teaching methods. According to what has been presented by



(Joensuu-Salo et al., 2023) regarding teaching methods, the management of higher education institutions has positive implications for teachers' entrepreneurial abilities and dramatically impacts the teaching of entrepreneurship. This study emphasizes that teachers' entrepreneurial competence must be pursued optimally through managerial practice. Other studies, such as those (Vecchiarini & Somià, 2023), have found that the ChatGPT method has the opportunity to open up student creativity more productively. This means that previous studies on teaching yielded positive results on the sense of entrepreneurship even though they used different research designs. Entrepreneurship education at the university should create an environment that supports and motivates students to develop their entrepreneurial potential and be ready to face the challenges of the business world (Wei et al., 2024). In the future, entrepreneurship education must be taught early and proposed as a compulsory lesson in the school environment to prepare brilliant Indonesian individuals to compete. An appropriate teaching approach, mini-project, for example, can be intensely implemented to teach entrepreneurial classes better.

### **Conclusion**

The study highlights the effectiveness of a bidirectional teaching model in entrepreneurship education. This model, which combines theoretical instruction with practical application, significantly enhances student engagement and learning outcomes. The bidirectional approach allows students to relate theoretical concepts to real-world examples, fostering a deeper understanding and active participation. An essential element of this teaching model is the inclusion of mini-projects. These projects enable students to apply theoretical knowledge in practical scenarios, such as developing business plans and analyzing recruitment strategies. The hands-on experience gained through mini-projects not only solidifies students' grasp of the material but also hones their problem-solving and critical-thinking skills. The study's findings underscore the superiority of the bidirectional teaching model over traditional methods. The experimental class, which utilized this approach, showed a 93% success rate in meeting various evaluation criteria, compared to just 30% in the control class. This stark contrast highlights the importance of integrating mini-projects and practical activities into the curriculum to enhance educational outcomes. The bidirectional teaching model, complemented by mini-projects, proves to be a highly effective approach in entrepreneurship education. It not only engages students more deeply but also equips them with practical skills and knowledge that are essential for their future careers.

### **Recommendation**

Lecturers should adopt a bidirectional teaching approach, blending theory with practical activities and mini-projects to enhance student engagement and understanding. Using real-life examples, encouraging group work, and fostering an interactive classroom environment are key. Continuous assessment and reflection on teaching methods based on student feedback and performance data are crucial for improvement. Future researchers should validate the effectiveness of these methods across various contexts, conduct longitudinal and comparative studies, explore student perspectives, integrate technology, and examine policy implications to inform best practices in curriculum design and instructional methods.

### **References**

Adha, E., & Permatasari, C. L. (2021). Peran Pendidikan Kewirausahaan Dalam Menumbuhkan Kesiapan Berwirausaha Siswa. *Journal of Economic Education*, 15,



- 60–71. <https://doi.org/10.19184/jpe.v15i1.21158>
- Ahmed Alismail, H. (2023). Teachers' perspectives of utilising distance learning to support 21st century skill attainment for K-3 elementary students during the COVID-19 pandemic era. *Heliyon*, 9(9), e19275. <https://doi.org/10.1016/j.heliyon.2023.e19275>
- Al-Atabi, M., & Deboer, J. (2014). Teaching entrepreneurship using Massive Open Online Course (MOOC). *Technovation*, 34(4), 261–264. <https://doi.org/10.1016/j.technovation.2014.01.006>
- Anggresta, V., Maya, S., & Septariani, D. (2022). Pengaruh Literasi Digital Dan Mata Kuliah Kewirausahaan Terhadap Kesiapan Berwirausaha. *Research and Development Journal of Education*, 8(1), 153. <https://doi.org/10.30998/rdje.v8i1.12090>
- Asholikha, E. D. C., & Nugraha, J. (2021). Pandemi Covid-19 dan Transformasi Pendidikan Kewirausahaan: Sebuah Studi Literatur. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 9(3), 332–349. <https://doi.org/10.26740/jpap.v9n3.p332-349>
- Bell, R., & Cui, J. (2023). Addressing progressive educational reforms: Fusing acquisition approaches and participation in Chinese entrepreneurship education. *International Journal of Management Education*, 21(1), 100748.
- Budi, B., & Fensi, F. (2018). Pengaruh Pendidikan Kewirausahaan Dalam Menumbuhkan Minat Berwirausaha. *Jurnal Pengabdian Dan Kewirausahaan*, 2(1), 1–9. <https://doi.org/10.30813/jpk.v2i1.1128>
- Chen, L., & Ifenthaler, D. (2023). Investigating digital entrepreneurship competence in an online practical training program. *International Journal of Management Education*, 21(3), 100894. <https://doi.org/10.1016/j.ijme.2023.100894>
- Darmawati, H. B. (2023). *The Practice of Tourism Product Endorsement: Perspective of Islamic Business Ethics in Social-Media*. VII(4).
- Dhini Suryandari, Retnoningrum Hidayah, Sukirman, Niswah Baroroh, A. H. (2021). Peningkatan Kompetensi Guru Akuntansi Sekolah Menengah Kejuruan melalui Pengembangan Kewirausahaan. *Jurnal Implementasi*, 1(1), 1–9.
- FAHRURROZI, M., WATHONI, H., BASRI, H., MOHZANA, M., & DWIMAULANI, A. (2023). Entrepreneurial Leadership Values in Tourism Classroom Teaching. Enhancing the Learning Processes for Tourism Business. *Journal of Environmental Management and Tourism*, 14(2), 458. [https://doi.org/10.14505/jemt.14.2\(66\).15](https://doi.org/10.14505/jemt.14.2(66).15)
- Fassbender, U., Papenbrock, J., & Pilz, M. (2022). Teaching entrepreneurship to life-science students through Problem Based Learning. *International Journal of Management Education*, 20(3), 100685. <https://doi.org/10.1016/j.ijme.2022.100685>
- Fatimah, I., Syam, A., Rakib, M., Rahmatullah, R., & Hasan, M. (2020). Pengaruh Literasi Kewirausahaan dan Peran Orang Tua Terhadap Kesiapan Berwirausaha Mahasiswa Pendidikan Ekonomi Fakultas Ekonomi Universitas Negeri Makassar. *Indonesian Journal of Social and Educational Studies*, 1(1), 83–95.
- Han, X. (2023). A Study on the Ecological Teaching Reform of College Mathematics Supported by Internet Technology. *Entertainment Computing*, 49(November 2023), 100630. <https://doi.org/10.1016/j.entcom.2023.100630>
- Harwiki, W. (2019). Pendidikan Kewirausahaan, Disrupsi Inovasi, dan Peluang Kewirausahaan pada Mahasiswa Universitas DR. Soetomo Surabaya. *PERWIRA - Jurnal Pendidikan Kewirausahaan Indonesia*, 2(1), 100–180.
- Hasan, H. A. (2020). Pendidikan Kewirausahaan: Konsep, Karakteristik, dan Implikasi Dalam Memandirikan Generasi Muda. *Jurnal Kajian Islam Kontemporer*, 11(1), 99–111.
- Hasan, M., Ihsan, M., Ahmad, S., Ilyas, M., Tahir, T., & Dinar, M. (2021). *PENDIDIKAN*



*KECAKAPAN HIDUP PADA SEKOLAH DASAR BERBASIS KEWIRAUSAHAAN.*  
6356, 231–238.

- Hermanto, H., Aries Suprpto, H., Manurung, L., & Eko Adi Prasetya, Y. (2022). PKM Pemanfaatan Kewirausahaan Melalui Daring Sebagai Produk Bernilai Ekonomis Pada Siswa SMP Driewanti Bekasi. *Journal Locus Penelitian Dan Pengabdian*, 1(6), 490–495. <https://doi.org/10.36418/locus.v1i6.156>
- Janowski, A., & Szczepańska – Przekota, A. (2024). Entrepreneurship education in Poland: Contemporary problems and future opportunities. *International Journal of Management Education*, 22(1), 1–16. <https://doi.org/10.1016/j.ijme.2024.100931>
- Joensuu-Salo, S., Peltonen, K., & Hämäläinen, M. (2023). The importance of HEI managerial practices in teachers' competence in implementing entrepreneurship education: Evidence from Finland. *International Journal of Management Education*, 21(2). <https://doi.org/10.1016/j.ijme.2023.100767>
- Johnson, M., & Meder, M. E. (2024). Twenty-three years of teaching economics with technology. *International Review of Economics Education*, 45(November 2023), 100279. <https://doi.org/10.1016/j.iree.2023.100279>
- Lavi, R., Tal, M., & Dori, Y. J. (2021). Perceptions of STEM alumni and students on developing 21st century skills through methods of teaching and learning. *Studies in Educational Evaluation*, 70, 101002. <https://doi.org/10.1016/j.stueduc.2021.101002>
- Lies Sunarmintyastuti, Hugo Aries Suprpto, Loecita Sandiar, Ari Wahyu Leksono, & Sigit Widiyanto. (2020). Penyuluhan Kewirausahaan Dan Pemberdayaan Siswa Yatim Piatu Di Ciputat Tangerang Selatan Banten. *ABIDUMASY Jurnal Pengabdian Kepada Masyarakat*, 1(2), 24–29. <https://doi.org/10.33752/abidumasy.v1i2.988>
- Liu, M., Gorgievski, M. J., Qi, J., & Paas, F. (2022). Increasing teaching effectiveness in entrepreneurship education: Course characteristics and student needs differences. *Learning and Individual Differences*, 96(April), 102147. <https://doi.org/10.1016/j.lindif.2022.102147>
- Liu, X., & Zhang, L. (2024). Exploring the relationship between teachers' professional capital and technology-enhanced teaching innovation: The mediating role of constructivist belief. *Teaching and Teacher Education*, 139(November 2023), 104434.
- Mahary, Azizah; Siregar Huspa, I. G. A. (2022). Jurnal abdi insani. *Jurnal Abdi Insani*, 9(1), 247–255.
- Martin, C., & Iucu, R. B. (2014). Teaching Entrepreneurship to Educational Sciences Students. *Procedia - Social and Behavioral Sciences*, 116, 4397–4400. <https://doi.org/10.1016/j.sbspro.2014.01.954>
- Mosey, S. (2016). Teaching and research opportunities in technology entrepreneurship. *Technovation*, 57–58, 43–44. <https://doi.org/10.1016/j.technovation.2016.08.006>
- Motta, V. F., & Galina, S. V. R. (2023). Experiential learning in entrepreneurship education: A systematic literature review. *Teaching and Teacher Education*, 121. <https://doi.org/10.1016/j.tate.2022.103919>
- Nybye, N., & Wraae, B. (2023). Afterthought and mirroring in the entrepreneurial classroom. *International Journal of Management Education*, 21(2), 100766. <https://doi.org/10.1016/j.ijme.2023.100766>
- Ozen, C., Owaishiz, A., Dabic, M., & Daim, T. (2023). Exploring entrepreneurship in the academic environment. *Technology in Society*, 72(July 2021), 102168.
- Pormes, L. (2021). Potret Wajah Pendidikan Kewirausahaan Di Perguruan Tinggi: Sudah Efektifkah? *Jurnal Ekonomi, Sosial & Humaniora*, 2(06), 53–60.
- Pratama, A., Mukaromah, S., & Ayu I, S. (2019). Analisis Dan Perancangan Sistem



- Informasi Kewirausahaan Mahasiswa Sebagai Media Pemasaran Unit Usaha (Studi Kasus: Upn Veteran Jawa Timur). *SCAN - Jurnal Teknologi Informasi Dan Komunikasi*, 14(3), 39–44. <https://doi.org/10.33005/scan.v14i3.1686>
- Rafael, V., & José, Q. M. (2013). Collaborative Learning and Interdisciplinarity Applied to Teaching Entrepreneurship. *Procedia - Social and Behavioral Sciences*, 93, 1510–1515. <https://doi.org/10.1016/j.sbspro.2013.10.073>
- Rifa'i, N. E. T. (2019). Rencana Strategi dalam Menerapkan Pendidikan Kewirausahaan di Perguruan Tinggi melalui Proses Pembelajaran yang Berkelanjutan. *JUMANIS-BAJA: Jurnal Manajemen Dan Bisnis Baja*, 1(2), 71–90.
- Senali, M. G., Iranmanesh, M., Ghobakhloo, M., Gengatharen, D., Tseng, M. L., & Nilsashi, M. (2022). Flipped classroom in business and entrepreneurship education: A systematic review and future research agenda. *International Journal of Management Education*, 20(1), 100614. <https://doi.org/10.1016/j.ijme.2022.100614>
- Siano, A., Bertolini, A., Conte, F., & Voller, A. (2024). Teaching loss of brand control to engineering entrepreneurship students through analogical mapping. *International Journal of Management Education*, 22(1), 100899.
- Teo, P. (2019). Teaching for the 21st century: A case for dialogic pedagogy. *Learning, Culture and Social Interaction*, 21(March), 170–178. <https://doi.org/10.1016/j.lcsi.2019.03.009>
- Tiberius, V., Weyland, M., & Mahto, R. V. (2023). Best of entrepreneurship education? A curriculum analysis of the highest-ranking entrepreneurship MBA programs. *International Journal of Management Education*, 21(1), 100753.
- Varas, D., Santana, M., Nussbaum, M., Claro, S., & Imbarack, P. (2023). Teachers' strategies and challenges in teaching 21st century skills: Little common understanding. *Thinking Skills and Creativity*, 48(April), 101289. <https://doi.org/10.1016/j.tsc.2023.101289>
- Vecchiarini, M., & Somià, T. (2023). Redefining entrepreneurship education in the age of artificial intelligence: An explorative analysis. *International Journal of Management Education*, 21(3), 1–11. <https://doi.org/10.1016/j.ijme.2023.100879>
- Wahyuningsih, R. (2020). Pengaruh Pendidikan Kewirausahaan dan Lingkungan Keluarga Terhadap Minat Berwirausaha Mahasiswa STKIP PGRI Jombang. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, 6(3), 512.
- Wathoni, H., & Basri, H. (2021). Local content: a new instructional in EFL writing autobiography (participatory action research on tourism class). *JPPPI (Jurnal Penelitian Pendidikan Indonesia)*, 7(2), 269–278. <https://doi.org/10.29210/02021976>
- Wei, H., Ding, A., & Gao, Z. (2024). The application of project management methodology in the training of college students' innovation and entrepreneurship ability under sustainable education. *Systems and Soft Computing*, 6(December 2023), 200073.
- Wu, S., Gao, L., Fu, J., Zhao, C., & Wang, P. (2023). The Application of Virtual Simulation Technology in Scaling and Root Planing Teaching. *International Dental Journal*, 0, 1–7. <https://doi.org/10.1016/j.identj.2023.09.007>
- Yang, Y., & Su, M. (2022). Research on the Application of Computer-Assisted Translation Technology in Translation Teaching. *Mobile Information Systems*, 2022, 200072. <https://doi.org/10.1155/2022/1898066>
- Yao, H., Liu, W., & Chen, S. (2024). Teachers sustainable teaching innovation and graduate students creative thinking: The chain mediating role of playfulness climate and academic self-efficacy. *The International Journal of Management Education*, 22(1), 100900. <https://doi.org/10.1016/j.ijme.2023.100900>