

Entrepreneurship Education Management in State Islamic Senior High Schools: Findings from Indonesia

Kemala Sandi Rosa*, Nilawati Tadjuddin, Safari, Amirudin, Muhammad Akmansyah

Islamic Education Management, Postgraduate at Raden Intan State Islamic University Lampung, Indonesia. *Corresponding Author's Email: kemalasandirosa@gmail.com

Abstract

Entrepreneurship education management has rapidly emerged as a key research focus, shaping global and national educational policies. In Indonesia, its development within state Islamic senior high schools is relatively recent. This descriptive qualitative study, guided by Deming's PDCA cycle framework, explores how two such schools implement entrepreneurship education management in the state Islamic senior high schools. Data were gathered through interviews, observations, and document analysis. The findings show that in the planning phase, both schools align their educational visions with entrepreneurial values. Their curricula integrate entrepreneurship, supported by learning facilities like labs and cooperatives, alongside trained human resources. Learning modules are crafted to be practical and relevant. During the implementation phase, students engage in hydroponic farming—an activity combining agriculture and food processing—through Project-Based Learning (PBL) and technology, reinforced by partnerships for internships and fieldwork. In the checking phase, progress is tracked via hydroponic control cards, with assessments focusing on process and skill development rather than grades. However, in the acting phase, differences arise for both schools. These initiatives enhance student creativity and business ideation and also significantly improve students' entrepreneurial competence, especially in the aspects of practical skills, independence, and adaptability to economic dynamics. Overall, the entrepreneurship education management fosters the development of adaptive, innovative graduates ready for global competition.

Keywords: Entrepreneurship Education, Islamic Senior High School, Management, Qualitative Study.

Introduction

Nowadays, entrepreneurship education is one of the most popular management education subjects due to its ability to link practice with theory. The development of entrepreneurial management is essential at all levels of education, from elementary education to higher education (1, 2). Through this approach, the education system in Indonesia is expected to create individuals who have entrepreneurial and creative skills and can face global economic challenges (3, 4). The management of entrepreneurial education plays a role in implementing the principles in the law into and practice of education. This includes learning about basic concepts of entrepreneurship, developing entrepreneurial skills, and encouraging students to develop their business ideas. Entrepreneurial education management is a pivotal system to form a generation that can face economic dynamics and contribute innovation to the progress of the nation (5, 6). The management of entrepreneurship education itself derives its

theoretical basis, which emphasizes the importance of creating a learning environment similar to the business world to build students' entrepreneurial skills (7). He stated that entrepreneurship education should stimulate creativity and innovation through an integrated curriculum (8, 9). Entrepreneurship education is not only about teaching business skills to individuals, but also teaching them to work together, build teams, and reward each member's contribution in achieving a common goal. Thus, entrepreneurship education not only creates independent entrepreneurs but also entrepreneurs who can collaborate and contribute to building a strong business community and ecosystem (10, 11). Entrepreneurial education management refers to strategies and practices that lead to the development of entrepreneurial skills and young entrepreneurs. In the context of Islamic education, this approach has significant relevance because Islam encourages the principles of

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entrepreneurship, independence, and innovation in daily life. Entrepreneurship education in an Islamic context not only teaches practical business skills but also emphasizes moral values, ethics, and social responsibility in accordance with religious teachings. This provides a solid foundation for the development of individuals who are not only financially successful but also have a positive impact on society, in accordance with Islamic principles of community service and development (12). Based on the previous context, the Islamic senior high school has a curriculum structure that is prepared with guidelines and refers to the curriculum structure contained in the Decree of the Minister of Religion Number 184 of 2019 concerning guidelines for curriculum implementation in madrasahs. Through this regulation, it is determined that the subjects of crafts and entrepreneurship are included in group B, which means that these subjects are mandatory subjects for students in the classroom. For this reason, general entrepreneurship has also been set as a compulsory subject in every school. This is then expected to be able to produce independent outputs that animate and are competent in entrepreneurship. But in reality, entrepreneurship education in madrasahs still does not receive adequate attention and has not run optimally due to several factors. One of them is the lack of understanding of the importance of entrepreneurship in the context of Islamic education, so the curriculum that is prepared may not fully accommodate the aspects of entrepreneurship as a whole. In addition, limited resources and facilities in madrasahs can also be obstacles in implementing effective entrepreneurship education, such as a lack of training for teachers or limitations in relevant learning materials. The components and quality of teachers are one of the important elements that spearhead the success of the education process. The low skills of entrepreneurship education teachers are one of the fundamental problems that result in failure in fostering students' entrepreneurial intentions and attitudes. Facts in the field indicate that entrepreneurship education remains contemplative and complementary, resulting in an optimal quality of the entrepreneurship education process. Many previous studies have discussed the management of entrepreneurial education from

an Islamic perspective (13-18). Entrepreneurship education is considered an important capital for future learners. The reason is that having an entrepreneurial mindset and spirit can encourage creativity and innovation. This is in line with another research that entrepreneurship education successfully affects entrepreneurial self-efficacy, entrepreneurial attitudes, and entrepreneurial mindsets. Entrepreneurial attitudes play an important role in mediating entrepreneurship education and self-efficacy on students' entrepreneurial mindsets. In addition, other research revealed that entrepreneurship education is able to make a significant contribution to students' emotional and cognitive competencies in increasing their interest in entrepreneurship. The contribution of students' emotional and cognitive competence has a direct influence on entrepreneurial attitudes, interests, and self-efficacy. Entrepreneurship education can shape students' entrepreneurial competencies and cognitive skills, thus making entrepreneurship education a good alternative program in schools (19). From a number of these studies, no one has specifically researched the management of entrepreneurial education applied in madrasahs using the management concept of Deming (20). The concept known as the PDCA Cycle (Plan-Do-Check-Act) is a framework for continuous improvement. Therefore, further exploration is needed on how such management theories can be integrated into the Islamic educational environment to increase the effectiveness of entrepreneurship training (21-26). Further research is needed to find an entrepreneurial management that can be directly applied in Islamic educational institutions (27-29). Based on data owned by the ministry of religion of Lampung province, it was found that there are as many as 306 Aliyah madrasahs, with specifications of 18 state Aliyah madrasahs and 289 private Aliyah madrasahs. Meanwhile, in the city of Bandar Lampung, there are 16 Aliyah madrasahs with details of 2 state aliyah madrasahs and 14 private aliyah madrasahs. Entrepreneurship education in general has been carried out by all state Islamic senior high schools in Bandar Lampung City. As for the total number of Aliyah Madrasah in Bandar Lampung City, there are only two madrasahs that are accredited A, namely state Islamic senior high school 1 Bandar Lampung and

state Islamic senior high school 2 Bandar Lampung, which were subsequently chosen as the research locations. These two locations are considered appropriate by researchers because they are considered able to represent superior quality state madrasahs. Another reason is that the two madrasahs also integrate national and vocational curricula, have adequate facilities for students in carrying out entrepreneurial practice activities (30, 31). Moreover, in the state Islamic senior high schools 2 Bandar Lampung, there are already several laboratories or workshops, such as the fashion laboratory, the automotive laboratory, and the refrigeration engineering laboratory. Based on the problems that have been described earlier, this study formulates a research question: How is the plan (Plan), implementation (Do), evaluation (Check), and follow-up (Act) of entrepreneurship education management implemented at two state Islamic senior high schools in Bandar Lampung?

Methodology

This study used a qualitative phenomenological approach. This approach is considered more relevant because it aims to understand and describe the real circumstances in certain contexts in state Islamic senior high schools 1 Bandar Lampung and state Islamic senior high schools 2 Bandar Lampung. This approach is said to be phenomenological because the study is carried out in depth about the phenomena that exist at the research site and seeks to examine as much data as possible about the subject being studied (32). This study is in the form of descriptive analysis using a qualitative research approach. The data collected is in the form of a description of the activities of the subject being studied, their opinion, and other aspects related to the problem being studied.

In terms of methods, this study is field research because the focus is to dig deep into the current situation and interactions in a social entity such as a group, institution, or society (33). This study was conducted in the field to comprehensively understand the circumstances and dynamics that are taking place. The unit of analysis in this study is individuals who are at the research location and are actively involved in the context.

Research Setting

This study was conducted at two Indonesian Islamic senior high schools in Bandar Lampung. These locations were chosen because they are state madrasahs in Bandar Lampung city and were known by the community as a quality Aliyah madrasah, as well as the basic consideration of attractiveness and suitability, which is the background to the topics in the research. Further, the state Islamic senior high schools, Bandar Lampung are the Madrasahs that implement entrepreneurship education that is different from other madrasahs or schools, namely halal-based entrepreneurship, information technology, and social-based entrepreneurship, so that this can make this institution interesting to research and discuss.

Data and Data Sources

The data collected in this study includes data related to the focus of the research, namely, entrepreneurial education management. The data obtained was related to the focus of research on entrepreneurship education management in the state Islamic senior high schools of Bandar Lampung. In this study, the data were obtained directly from interactions and activities observed by researchers at two Indonesian state Islamic senior high schools in Bandar Lampung.

The data sources in this study consist of primary data sources and secondary data sources. The primary data source was obtained by the researchers directly from the first party or where the research object was carried out by the main data collection method involving in-depth interviews and observations which were then recorded and documented through interview transcripts. Additional data sources include information from documents such as geographic data, achievements, and other relevant documents, as well as demographic documents, resources, infrastructure, and management strategies of inclusive education programs at research sites, which have been provided by both institutions.

The process of determining informants uses the purposive sampling method based on certain criteria that are in accordance with the purpose of the research and snowball sampling, where

the first key informant is selected deliberately and then recommends other relevant informants. In this study, researchers conducted research on two Islamic schools in Bandar Lampung. Based on these schools, the researchers set several criteria to determine the research sample, namely a) responsible for the implementation of education management at State Islamic Senior High School 1 and 2 Bandar Lampung, b) teachers who are directly involved in school planning, namely teachers of entrepreneurship subjects, vice principals for curriculum, student representatives, and R and D representatives.

Meanwhile, in collecting data on students who participated in entrepreneurship education, the researchers used the snowball sampling technique. The technique is carried out by interviewing one person, then asking for recommendations from other relevant people this process repeats itself like an enlarged snowball (34). Based on these criteria, the researchers obtained primary data sources of 4 participants. The secondary data sources in this study are evidence, records or historical reports that have been compiled in published and unpublished archives (documentary data) regarding entrepreneurial education management.

Data Collection Techniques

Data collection in this study used various methods and techniques, such as interviews, observations, and documentation studies, which were selected according to the qualitative approach that became the basis of the research (32). First, in this study, the interview method was used by researchers to interact with sources who were relevant to the research topic. The type of interview used is a structured interview, where the researchers have previously prepared a grid of instruments and an interview framework as a guideline. This framework, which has been compiled by researchers, focuses on the implementation of educator management. However, if necessary, the researchers are prepared to improvise during the interview according to field conditions if the data obtained is deemed inadequate. Furthermore, in this study, the researchers employed non-participant observation, where they acted as independent

observers, both during the learning process and outside of learning activities. Observations are focused on various aspects of ongoing teaching and learning activities, as well as activities carried out by students during entrepreneurial practices. Finally, in this study, the researchers also used documentation techniques. In the process of the documentation study, the researchers accesses important information stored by schools related to the management of entrepreneurial education.

Data Analysis Techniques

The data analysis process includes the stages of data reduction, data presentation, and verification or concluding (32). The first is data reduction. The data collected from the field has a significant volume, so it needs to be recorded carefully and in detail. Therefore, data analysis is needed through a data reduction process. This data reduction involves reducing, filtering, and selecting important elements, focusing on crucial aspects, and eliminating irrelevant elements. With this approach, the data presented in this study becomes more organized and easier to understand, as it only includes substantial information and provides a comprehensive picture. After the data reduction process, the next step is to present the data. In this study, the data were presented through text narratives. The purpose of presenting this data is to ensure that the results of the research can be clearly understood by the readers, so that this research can provide great benefits to those who read it in the future. The next step taken by researchers is to verify or draw conclusions from the data that has been collected in the field. By doing this, it is hoped that it can provide answers to the research questions that have been formulated, thus forming a clear problem and possibly revealing new findings that have not been previously identified.

Results and Discussion

The following section describes the data analysis and discussion of each research question.

The Plan (Plan) of Entrepreneurship Education at the State Islamic Senior High Schools in Bandar Lampung City

Entrepreneurship education planning at the state Islamic senior high school Bandar Lampung city is designed to equip students with practical skills

and an entrepreneurial mindset. In this planning, the school aligns the vision and mission of education with entrepreneurial values, so that education not only focuses on academic achievement, but also on the development of students' potential in entrepreneurship. The curriculum is designed to include aspects of entrepreneurship, either through special subjects, integration in other subjects, or extracurricular activities. In addition, the school also provides supporting facilities, such as entrepreneurship laboratories, student cooperatives, or school business units, where students learn business practices directly.

Entrepreneurship education at the state Islamic senior high school 1 Bandar Lampung is carried out based on the project strengthening the Profile of Pancasila Students and Rahmatan Lil 'Alamin Students (P5RA) with the topic *Cultivating Plants with Hydroponic Methods*. The planning begins with the provision of human resources, the preparation of hydroponics-based entrepreneurship modules, and the selection of suitable plant types. The program is designed to provide students with practical skills and insight into modern agriculture-based entrepreneurship, while supporting the formation of independent and environmentally conscious student character. Meanwhile, the educational planning process at the state Islamic senior high school 2 Bandar Lampung begins with preparing an activity plan. In this case, the entrepreneurship education provided at the state Islamic senior high school 2 Bandar Lampung is in the form of fashion skills, such as sewing, Eco print, and automotive. This was conveyed by participant 1:

The entrepreneurship education provided is to teach independence and skills to students, because actually here state Islamic senior high schools is oriented to college but not all students will continue to a higher level whether it is due to economic factors or other factors so it is also necessary to be given skills for business so that later they can start their own business or not, at least they already have skills after they graduate from here. Here, the entrepreneurial skills given are fashion skills such as sewing, then there are Eco print batik, and also automotive workshops, so even though they go to

school in state Islamic senior high schools, but are not inferior to vocational schools. We adjust them to the situation; for the curriculum itself, we adjust it to the independent curriculum. So here we prepare a specific activity plan so that students not only master theory but also have skills. We chose these skills because we see the potential and need for skills in the community, especially among the younger generation, who increasingly need practical skills in the world of work or business.

Based on the results of the interview, it was explained that the entrepreneurship education program at the state Islamic senior high school 2 Bandar Lampung is designed to equip students with independence and practical skills. This program aims to provide an alternative for students who do not continue their education to a higher level, either due to economic constraints or other factors. With the provision of these skills, it is hoped that students can start a business or have the ability to jump directly into the world of work after graduation.

Although the state Islamic senior high school 2 Bandar Lampung focuses on academic education, this program is designed so that students do not fall in love with vocational school graduates. This entrepreneurship education program is aligned with the Independent Curriculum, which makes students not only understand theory but also master practice in depth. This was conveyed by participant 1:

We are here the teachers also prepare learning modules and teaching materials that are in accordance with each skill, so we make sure that each skill taught is complete and easy for students to understand, we also collaborate with practitioners in each field, we yesterday took some from BLK, then there is Valentina, so we also collaborate as well which later we can distribute children for street vendors there as well. In that learning we instill an entrepreneurial mindset in students, so they can understand that later the skills they have can be used as capital to start their own business or work in a field that suits their

interests. We also teach students to be able to develop their creativity.

Based on the results of the interview, it shows that the teachers at the state Islamic senior high school 2 Bandar Lampung have a strong commitment to supporting entrepreneurship education programs through the preparation of learning modules and teaching materials that are tailored to each skill field. Each teacher ensures that the material prepared is complete, easy to understand, and relevant to the students. In addition, the school also collaborates with various professional practitioners in the field of skills, such as the Job Training Center (BLK), and also Valentina to improve the quality of learning. This is in line with the findings (34). This collaboration not only helps to enrich students' experience, but also opens up opportunities for them to undergo Field Work Practice at the appropriate institution or place. In the learning process, teachers instill an entrepreneurial mindset in students so that they are able to understand that their skills can be valuable capital to start their own business or work in a field that suits their interests. The students are also taught to develop their creative ideas that can be applied in the world of work or business.

The Implementation (Do) of Entrepreneurship Education at the State Islamic Senior High Schools in Bandar Lampung City

Entrepreneurship activities at the state Islamic senior high school 1 are integrated with learning the values of Pancasila and rahmatan lil 'alamin, where students are allowed to develop entrepreneurial projects based on these concepts. The theme of entrepreneurship, *Cultivating Plants with Hydroponic Methods*, invites students to not only learn about the technical aspects of agriculture but also develop an understanding of how entrepreneurial activities can contribute to environmental and social sustainability. This was conveyed by participant 2:

Now the entrepreneurship lessons here are no longer carried out, but replaced by P5RA, which is integrated into entrepreneurship education, where we have an entrepreneurial theme taken, namely cultivating plants with the hydroponic method.

This entrepreneurship project provides students with hands-on experience in designing and

executing businesses with the theme of modern agriculture. They are invited to make a business plan, starting from planning the procurement of hydroponic materials and tools, selecting suitable plants for planting, to the marketing process of the hydroponic plant products produced. Students are also given space to develop creativity in managing these projects, for example, by looking for innovative ways to improve the efficiency of hydroponic systems, or developing products that can provide more benefits, such as high-quality organic vegetables.

The implementation of entrepreneurship education at the state Islamic senior high school 1 Bandar Lampung focuses on an applicable and attractive approach for students by utilizing simple but effective methods. The results of these findings are in line with the findings of another research (35). Teachers create practical challenges for students by utilizing used drinking bottles as a planting medium in hydroponic projects. This approach is designed to make it easier for students to understand concepts while developing simple farming skills using recycled materials. In its implementation, teachers adapt the material from the syllabus to be more applicable and in accordance with students' interests, such as farming projects that can be directly practiced. The project encourages students to keep trying until they succeed, providing a challenge- and achievement-based learning experience. Success in growing plants creates a sense of pride and enthusiasm for students that is then integrated into their daily lives. In addition, the teacher also advises students to use other materials available at home, such as paralons, cardboard, as alternative planting media.

In addition to the hydroponic planting project, students at the state Islamic senior high school 1 Bandar Lampung were also directed to make a follow-up project in the form of food processing from the plant's products. After successfully planting the second crop, pak choi, which previously began with curly lettuce, students were asked to process the crops into food. In this way, entrepreneurial learning becomes more integrated, involving the cycle from the production process to the processing and marketing of ideas. This was conveyed by participant 3:

So this is the second crop pak choi, the first is curly lettuce Alhamdulillah, the 3 classes have been harvested at the same time so I ask the children to make the basic product made from lettuce, not only limited to decoration but this lettuce is the main food there, so please see the examples of food but don't be the same as each other, So the processing was made, so when they presented me, I asked and also served the food, if for example who was the target market business, how much capital, how much profit, because we are doing business, we must hope that there will be a profit.

Based on the results of the interview, the implementation of entrepreneurship education at the state Islamic senior high school 1 Bandar Lampung involves students in projects that combine agriculture and food processing. After successfully planting curly lettuce, which became the first crop to be harvested, the students continued the project by planting pak choi as a second crop. When the lettuce has been harvested by three classes at once, the teacher asks the students to process the harvest into food products, not just as decorations.

Entrepreneurship education at the state Islamic senior high school Bandar Lampung city is carried out as part of an effort to equip students with life skills that are relevant to the needs of the times. Based on the results of observations and interviews, the implementation of this program includes various activities that aim to instill an entrepreneurial spirit in students while providing practical experience in the business world. The curriculum used in learning Entrepreneurship Education at state Islamic senior high schools 2 Bandar Lampung is adjusted to the Independent Curriculum, this was conveyed by participant 1:

If the curriculum is adjusted to the independent curriculum, if this one is still K13, it will also be combined because we can take from all of the vocational schools, we adjust it again according to the situation, if there are 2 teachers here, if for the field I myself am from fashion, if Mrs. Nani is skilled, if the facilities here are already complete, God willing.

Based on the results of the interview, it describes the flexibility in the implementation of the curriculum used at the state Islamic senior high school 2 Bandar Lampung, namely by combining the independent curriculum and the 2013 curriculum (K13), is adjusted to the needs of students and their potential. In its implementation, teachers already have competence in accordance with their fields. The existence of complete and adequate facilities also supports learning activities at the state Islamic senior high school 2 Bandar Lampung.

In entrepreneurship learning at the state Islamic senior high school 2 Bandar Lampung, the method used, namely project-based learning was conveyed by participant 1:

For the method, we use PJBL because the practice is project-based, so this KWU is studied during the subject, if there is no extracurricular activity.

The results of the interview showed that entrepreneurship education learning at the state Islamic senior high school 2 Bandar Lampung used the Project-Based Learning (PJBL) method or project-based learning. This method is used because entrepreneurship subjects emphasize more on real practice than theory. These findings are consistent with the findings (36-38). Using the PJLB method, students are invited to work on projects that are relevant to the world of entrepreneurship so that they not only understand the concept but also are able to apply this knowledge in real situations.

The application of the Project-Based Learning (PJBL) method or project-based learning at the state Islamic senior high schools 2 Bandar Lampung reflects the school's efforts to support active and contextual learning, where students learn through direct experience. This is done to train students to think creatively, innovatively, skills, and problem-solving in the business world. However, based on the interview, it was also revealed that entrepreneurship education at the state Islamic senior high school 2 Bandar Lampung is only taught during formal lesson hours and is not equipped with special extracurricular activities. This is certainly a limitation for students because extracurricular can be a forum to expand students' experience in entrepreneurship outside of study hours.

In the implementation of skill activities, the teacher maps the students according to their competence, and then provides a YouTube video so that students observe how to sew through the video. In addition, students are also allowed to do hands-on practice, either individually or in groups, according to the skills being learned, such as sewing collars or making skirts. This was conveyed by participant 4:

This is a variety of competencies, so those who are above the level of this child are constrained, for example, what kind of sewing is it, I give it to YouTube so they observe some on their own, some are in groups, so later I will map which children are, for example, sewing collars, then there are those who make skirts, so in addition to direct practice from me, they can also observe how to sew from YouTube.

Based on the results of the interview, it can be seen that the strategies used in entrepreneurship learning at the state Islamic senior high school 2 Bandar Lampung, especially in sewing skills, teachers utilize technology such as YouTube videos to help students understand sewing skills independently or in groups. In addition, teachers also map student competencies based on skills such as sewing collars or making skirts. In this way, students who have higher abilities can continue to develop without being hindered, while students who are still learning the basics of sewing still get the attention they deserve. This method shows a combination of hands-on and technology-based learning.

In the education process, the state Islamic senior high school 2 Bandar Lampung also collaborates with various institutions in supporting the implementation of entrepreneurship education in schools. This cooperation includes several institutions relevant to the field of skills taught, such as course institutions, the business world, and training places. This collaboration gives students the opportunity to gain hands-on experience in the world of work and improve their competence in the field studied. This was conveyed by Participant 5.

For now, yesterday we collaborated with Batik Eco print, if for internships, our students go to convection or

anywhere for one month, because they only take it during semester holidays.

In addition, the existence of an internship program or street vendor is also part of entrepreneurship learning at the state Islamic senior high school 2 Bandar Lampung. Students are allowed to intern in a place such as convection for one month, and are usually done during semester breaks. The program is designed to provide real-world experience in the field so that students can practice the theories they have learned in the classroom in a real work environment. In the implementation of internships or street vendors, there are necessary stages to be carried out, as said by participant 1:

So the internship is carried out in the second year of the program by taking even semester vacations, for the first stage it is carrying out pre-internships, so this is like a debriefing activity that is carried out for one day to equip students who will carry out the internship so that when the students in the field already have knowledge about the material to be carried out, the rules in the business world, Manners, Work Safety, Journal Books Related to the Business World. Then we form a street vendor committee and appoint a supervisor in the field, then we conduct a survey of street vendor locations, we find street vendor places that suit the student's conditions, only after that we take students to street vendor places and monitor street vendor activities by the committee team, then there is an evaluation of activities and also reporting street vendor activities.

Based on the results of the interview, the implementation of the internship (Field Work Practice) at the state Islamic senior high school 2 Bandar Lampung was carried out in the second year of the program, by taking advantage of the even semester holidays. This internship process begins with the pre-internship stage, which is a debriefing activity for students who will take part in the internship.

The Evaluation (Check) of Entrepreneurship Education at the State Islamic Senior High School in Bandar Lampung City

The evaluation of entrepreneurship education at the state Islamic senior high schools Bandar Lampung city was carried out to assess the success of the program in achieving the goals that have been set and to identify aspects that need improvement. Students are assessed based on their understanding of entrepreneurial concepts, technical abilities in the field studied, and managerial skills developed during the program. At the state Islamic senior high school 1 Bandar Lampung, the success of the hydroponics program is measured through students' ability to prepare business plans, carry out plant cultivation practices, and market crops. In its implementation, the evaluation was carried out by looking at the development of plants produced by the students; this was conveyed by Participant 3:

So we see how their plants develop, if for example there is a failure or does not grow, we recommend trying again until it succeeds, so students don't stop if the plants don't grow.

Based on the interview, it was seen that the evaluation of the success of the program was carried out by monitoring the development of plants produced by the students. This certainly teaches students how important perseverance and resilience are in facing challenges that arise during the cultivation process. The students are also taught to self-evaluate and analyze the factors that affect the growth of their plants, both in terms of the environment and the cultivation techniques carried out, so that this activity, in addition to producing healthy and productive plants, also equips students with critical thinking and problem-solving skills that can be applied in aspects of life.

In addition, educational evaluation at the state Islamic senior high school 1 Bandar Lampung is carried out through a hydroponic plant control card, which is an important tool to monitor and assess students' progress in hydroponics-based entrepreneurship activities. This control card serves as a complete record of each stage that students carry out in the process of cultivating hydroponic plants, from seeding, plant care, to harvesting. Through the control card, students can

document their various activities, including observations of plant growth, environmental conditions, and maintenance carried out. With this recording, teachers can evaluate students' skills and understanding in applying hydroponic techniques. In addition, the control card also serves to evaluate students' ability to plan and manage hydroponic businesses, including economic aspects, such as the calculation of costs and potential profits from crops. In addition, the evaluation of education at the state Islamic senior high school 1 Bandar Lampung is also carried out by observing the results of student work, this was conveyed by participant 2:

Yes, if they are P5RA, the assessment is not in the form of numbers, yes, the development is generally developing, yes, it's just that the value of Pancasila characters, but it does not include everything because there are still indications, so the teacher who teaches asks to bring plants here because one student is one bottle of the plant.

Based on the results of the interview, in the P5RA (Pancasila and Rahmatan Lil 'Alamin Student Profile Strengthening Project), the assessment was not carried out quantitatively with numbers, but rather on the observation of student development. The assessment is focused on how students show progress in character aspects related to Pancasila values, although it does not cover all indicators as a whole. Student character development rather than the final outcome measured by numbers. The same thing was also done at the state Islamic senior high school 2 Bandar Lampung, where the evaluation was carried out by looking at the assessment and learning outcomes of students, this was conveyed by participant 3:

"If so far, we have seen the assessment from the results of their stitching, if the assessment has been observed, but yesterday we had a chance to do it at the beginning of what his understanding was like, but what is currently just an observation, later the end will be adjusted to the learning achievements. Then, later, we will also map which students are fluent and which are not. If those who are fluent already understand, we will give

new challenges for more complicated products, if we have not assisted them until they can, so we differentiate here because the abilities of students are different."

Based on the results of the interview, the evaluation of education at the state Islamic senior high school 2 Bandar Lampung was carried out by looking at the results of student practice. The main assessment is carried out through observation of students' sewing results to assess the quality of their work. In addition, in the initial stage, the evaluation included measuring students' understanding of basic theories or concepts, although currently the assessment is more observational. Teachers evaluate the learning process by mapping students' abilities based on their skill level. Students who have demonstrated good understanding and skills are given a new challenge to create more complex products. This is intended to encourage them to develop further skills and explore creativity in design and sewing techniques. On the other hand, students who are still facing difficulties will be given intensive mentoring until they are able to reach the expected standards.

The Follow-up (Act) of Entrepreneurship Education at the State Islamic Senior High School in Bandar Lampung

Follow-up in entrepreneurship education is carried out as a step taken after the learning process of entrepreneurship theory and practice. This aims to support students to develop entrepreneurial potential both through mentoring, providing facilities, and providing opportunities for entrepreneurship. However, in the implementation of entrepreneurship education at State Islamic Senior High School 1 Bandar Lampung, there has been no follow-up on the program; this was conveyed by participant 2.

If there is no follow-up yet, then we are only limited to theory and practice.

Based on the results of interviews regarding the follow-up of education at State Islamic Senior High School 1 Bandar Lampung, it is known that so far the school has not had a program or concrete steps in following up on student learning outcomes, both in theory and practice. Meanwhile, a different thing can be seen in the follow-up carried out at State Islamic Senior High School 2

Bandar Lampung, where the follow-up of entrepreneurship education is carried out by first looking at the results of student assessments. This assessment includes an evaluation of the understanding of entrepreneurial theory, practical skills, and the results of the work or products that they have created during the learning process, this is based on an interview with participant 4:

If we have seen the assessment from the results of their stitching, if the assessment has been observed, but yesterday we had a chance to do it at the beginning of what his understanding was like, but what is currently just an observation, later the end will be adjusted to the learning achievements.

In the assessment method used in sewing skills, it is carried out by observing the results of students' work in the form of their sewing products. This shows that product-based assessment is the main focus in entrepreneurship education on sewing skills, where the quality of students' work is an indicator of learning success.

Enrichment as a follow-up to entrepreneurship education at the state Islamic senior high school 2 Bandar Lampung is carried out with an emphasis on improving students' knowledge and skills through various additional activities. This enrichment is designed to support students in deepening their understanding of entrepreneurship, honing practical skills, and encouraging creativity in creating new business ideas. Enrichment activities involve programs such as advanced training provided by teachers or entrepreneurial practitioners, more innovative product development, and more complex business simulations.

After the assessment carried out by the teacher, then students are given enrichment as a follow-up to the learning and practice that has been completed, this is based on an interview with participant 1:

"If for children who have been able to complete it, they are given additional enrichment, we ask what do you want to practice, the idea that they are already able to be rich in party clothes we direct to make party clothes, later it can be displayed at the performance or when the farewell is shown it is children who are

already good, so when they finish this practice they are not necessarily unemployed so they are given enrichment again. So we are also not inferior to the vocational school, it is recognized at the Dessy Munaf boutique, we are street vendors there so it's good that these children are not familiar with vocational schools, because their orientation will be later to the world of work, for students to also get a certificate from the street vendor place"

From the results of the interview, it was explained that when students can complete the sewing project well, they will be given additional enrichment. The teacher allows students to choose a more challenging type of practice, such as making party clothes. The results of these students' skills will then be displayed at the staging or farewell event, which certainly gives them the opportunity to show off the skills they are good at. In addition, the interview showed that the state Islamic senior high school 2 Bandar Lampung has cooperation with the business world, where students are allowed to do Field Work Practice in that place. This street vendor is a strategic step taken by the state Islamic senior high school 2 Bandar Lampung to prepare students to be ready to compete and face the world of work after graduation by connecting them with places that are suitable for the fashion industry and sewing skills.

Conclusion

This study shows that the implementation of a structured and cycle-based entrepreneurship education management in the state Islamic senior high school 1 and the state Islamic senior high school 2 Bandar Lampung is able to significantly improve students' entrepreneurial competence, especially in the aspects of practical skills, independence, and adaptability to economic dynamics. This entrepreneurship education management integrates a project-based entrepreneurship curriculum, practical training, and collaboration with the local business world, which synergistically supports the formation of an entrepreneurial mentality among students. The difference in implementation between the state Islamic senior high school 1 and the state Islamic senior high school 2 Bandar Lampung shows that the sustainability and depth of program follow-up

affect the effectiveness of entrepreneurship learning outcomes. The state Islamic senior high school 2 shows a more progressive approach to practical skills enrichment, while the state Islamic senior high school 1 requires reinforcement in that aspect to achieve optimal results. Overall, these findings confirm that practice-based entrepreneurship management and continuous evaluation are not only relevant in local contexts but also have the potential to be replicated more widely in other educational institutions. The application of this entrepreneurship management makes an important contribution in preparing graduates who not only understand entrepreneurial theory but are also able to innovate, adapt, and compete in a competitive global market.

Abbreviations

KWU: Kewirausahaan (entrepreneurship), K13: the 2013 Curriculum, PBL: Project-Based Learning, PDCA: Plan-Do-Check-Act, P5RA: Proyek Penguatan Profil Pelajar Pancasila Rahmatan Lil 'Alamin (Pancasila and Rahmatan Lil 'Alamin Student Profile Strengthening Project), R and D: Research and development.

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Author Contributions

Kemala Sandi Rosa: conceptualization, methodology, investigation, data curation, writing original draft, Nilawati Tadjuddin: supervision, conceptualization, methodology, reviewing, editing, Safari: reviewing, editing, Amiruddin: reviewing, editing. All authors of this paper have read and approved the final version submitted.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this research.

Declaration of Artificial Intelligence (AI) Assistance

The authors declare that they did not use AI-assisted tools (ChatGPT, OpenAI) during the writing process.

Ethics Approval

This study involved humans as respondents to the interviews (non-interventional study). No experiments or clinical trials were conducted. All participants provided written informed consent prior to engagement in this study.

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References

- Andriadi D, Idrus A. Entrepreneurship education in a school. *LADU Journal of Languages and Education*. 2024;4(3):83–9. <https://doi.org/10.56724/ladu.v4i3.277>
- Hahn D, Minola T, Van Gils A, Huybrechts J. Entrepreneurial education and learning at universities: Exploring multilevel contingencies. *Entrepreneurship Regional Development*. 2017; 29(9–10):945–74.
- Amalia RT, von Korflesch HF. Entrepreneurship education in Indonesian higher education: Mapping literature from the country's perspective. *Entrepreneurship Education*. 2021;4(3):291–333. <https://doi.org/10.1007/s41959-021-00053-9>
- Ratten V, Jones P. Entrepreneurship and management education: Exploring trends and gaps. *The International Journal of Management Education*. 2021;19(1):100431. <https://doi.org/10.1016/j.ijme.2020.100431>
- Bauman P, Lucy M. Enhancing entrepreneurial education: Developing competencies for success. *The International Journal of Management Education*. 2021;19(1):100293. <https://doi.org/10.1016/j.ijme.2019.03.005>
- Block JH, Halberstadt J, Högsdal N, Kuckertz A, Neergaard H. The future of entrepreneurship education and training: Some propositions. In: Block JH, Halberstadt J, Högsdal N, Kuckertz A, Neergaard H, editors. *Progress in entrepreneurship education and training. New methods, tools, and lessons learned from practice*. Cham: Springer; 2023. *FGF Studies in Small Business and Entrepreneurship*, 2023;1: 1–9. https://doi.org/10.1007/978-3-031-28559-2_1
- Kuratko DF. *Entrepreneurship: Theory, Process, and Practice*. 8th ed. Mason (OH): Cengage South-Western; 2008. 544. <http://bit.ly/47aBdAV>
- Tan AL, Ong YS, Ng YS, Tan JHJ. STEM problem solving: Inquiry, concepts, and reasoning. *Science and Education*. 2023;32:381–397. doi.org/10.1007/s11191-021-00310-2
- Boubker O, Naoui K, Ouajdouni A, Arroud M. The effect of action-based entrepreneurship education on intention to become an entrepreneur. *MethodsX*. 2022; 9:101657. <https://doi.org/10.1016/j.mex.2022.101657>
- Hendarwati E, Nurlaela L, Bachri BS. The Collaborative Problem-Based Learning Model Innovation. *Journal of Educational and Social Research*. 2021;11(4):97–106. <https://doi.org/10.36941/jesr-2021-0080>
- Silalahi J, Abdullah R. Effects of problem-based learning model and collaborative learning model on the learning outcomes of mechanics engineering. *Journal of Physics: Conference Series*. 2020;1456:012035. <https://doi.org/10.1088/1742-6596/1456/1/012035>
- Zaki A, Fachruddin F, Nasution S. Entrepreneurship education management in realizing the independence of boarding schools in Langkat. *Edukasi Islami Jurnal Pendidikan Islam*. 2023;12(1):1–18. <https://doi.org/10.30868/ei.v11i03.33.4552>
- Wardana LW, Narmaditya BS, Wibowo A, Mahendra AM, Wibowo NA, Harwida G, Rohman AN. The impact of entrepreneurship education and students' entrepreneurial mindset: The mediating role of attitude and self-efficacy. *Heliyon*. 2020;6(9):e04922. <https://doi.org/10.1016/j.heliyon.2020.e04922>
- Krishnawati N, Nurihsan J, Budimansyah D, Nurdin ES. The Role of Entrepreneurship Education in Shaping Students' Emotional and Cognitive Competencies for Entrepreneurship. *International Journal of Learning, Teaching and Educational Research*. 2023 Feb;22(2):262–80.
- Mardiah W, Yuniarsih T, Wibowo LA. Pengaruh Pendidikan Kewirausahaan Dan Orientasi Kewirausahaan Terhadap Intensi Berwirausaha: (Studi Survei pada Siswa Kelas XII SMA Negeri 27 Garut). *OIKOS: Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi*. 2023 Jan 6;7(1):153–63.
- Miço H, Cungu J. Entrepreneurship education, a challenging learning process towards entrepreneurial competence in education. *Administrative Science*. 2023;13(1). <https://doi.org/10.3390/admsci13010022>
- Di Paola N, Meglio O, Vona R. Entrepreneurship education in entrepreneurship laboratories. *The International Journal of Management Education*. 2023 Jul 1;21(2):100793.
- Walmsley A, Wraae B. Entrepreneurship education but not as we know it: Reflections on the relationship between critical pedagogy and entrepreneurship education. *International Journal of Management Education*. 2022;20(3):100726. <https://doi.org/10.1016/j.ijme.2022.100726>

19. Sari MN, Harto SP, Muhyadi M. Development of entrepreneurship education based on the Menara Berkah model in Indonesian vocational high schools. *Journal of Education and Learning*. 2024;18(3):868–880.
<https://doi.org/10.11591/edulearn.v18i3.21003>
20. Deming WE. *Out of the Crisis*. Cambridge (MA): MIT Center for Advanced Engineering Study; 1986.
<https://direct.mit.edu/books/monograph/4192/Out-of-the-Crisis>
21. BPS-Statistics Indonesia Lampung Province. Number of schools in Madrasah Aliyah (MA) under the ministry of Religious Affairs by Regency/Municipality, 2024.
<http://bit.ly/4q8Ka6l>
22. Nguyen V, Nguyen N, Schumacher B, Tran T. Practical application of plan-do-check-act cycle for quality improvement of sustainable packaging: A case study. *Applied Sciences*. 2020;10(18):6332.
<https://doi.org/10.3390/app10186332>
23. Isniah S, Purba HH, Debora F. Plan do check action (PDCA) method: Literature review and research issues. *Jurnal Sistem dan Manajemen Industri*. 2020;4(1):72–81.
24. Suguna M, Zahrani S, Al-Harbi A. Entrepreneurial education and its role in fostering sustainable communities. *Scientific Report*. 2024;14(1):7588.
<https://doi.org/10.1038/s41598-024-57470-8>
25. Alshebami AS, Al-Jubari I, Alyoussef I, Raza M. Entrepreneurial education as a predictor of community college of Abqaiq students' entrepreneurial intention. *Management Science Letter*. 2020;10(15):3605–12.
26. Rustiana. Entrepreneurship education and other exogenous variables in the theory of planned behavior model: A systematic literature review. *Journal of Indonesian Economy and Business*. 2025;40(1):140–63.
<https://doi.org/10.22146/jieb.v40i1.10323>
27. Ripollés M, Blesa A. Moderators of the effect of entrepreneurship education on entrepreneurial action. *International Journal of Entrepreneurial Behavior and Research*. 2023;29(7):1402–26.
<https://doi.org/10.1108/IJEBR-06-2022-0518>
28. Tiberius V, Weyland M. Entrepreneurship education or entrepreneurship education? A bibliometric analysis. *Journal of Further and Higher Education*. 2022;47(1):134–149.
<https://doi.org/10.1080/0309877X.2022.2100692>
29. Luoma K. Leadership styles for Deming-based management systems. *American Journal of Management*. 2023;23(4).
<https://articlegateway.com/index.php/AJM/article/view/7159>
30. Lans T, Tynjälä P, Biemans H, Ratinho T, Karimi S. Entrepreneurship education with impact: Opening the black box. *Education Research International*. 2017;2017(1):7051795.
<https://doi.org/10.1155/2017/7051795>
31. Zhao Y, Huang T, Wang H, Geng J. Personalized teaching questioning strategies study based on learners' cognitive structure diagnosis. *Behavioural Sciences*. 2023;13(8):660.
32. Creswell JW, Poth CN. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. 4th ed. Thousand Oaks (CA): SAGE Publications; 2018.
<http://bit.ly/470EyCt>
33. Johnson B, Christensen L. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. 6th ed. Thousand Oaks (CA): SAGE Publications; 2017.
<http://bit.ly/4qa4NPK>
34. Neuman WL. *Social Research Methods: Qualitative and Quantitative Approaches*. 7th ed. Harlow: Pearson Education Limited; 2014.
<https://bit.ly/48pvnXx>
35. Tran VD. Does Cooperative Learning Increase Students' Motivation in Learning?. *International Journal of Higher Education*. 2019;8(5):12–20.
36. Efendi D, Zain IM, Elfida Y, Putra AS, Auliya SS. Enhancing Entrepreneurship Skills in MAN 5 Agam Students through a Studentpreneurship Program. *EDUKASI: Jurnal Penelitian Pendidikan Agama dan Keagamaan*. 2024 Dec 31;22(3):324–38.
37. Guo P, Saab N, Post LS, Admiraal W. A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*. 2020; 102:101586.
<https://www.sciencedirect.com/science/article/pii/S0883035519325704>
38. Maros M, Korenkova M, Fila M, Levicky M, Schoberova M. Project-based learning and its effectiveness: evidence from Slovakia. *Interactive Learning Environments*. 2023 Oct 3;31(7):4147–55.

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