The Identification of Project-Based Learning Problems at Vocational High School

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Abstract. In terms of education, the highest unemployment rate is experienced by graduates of high school, vocational school, and college colleges. Entrepreneurship education is seen as one of the solutions to overcome this unemployment problem. This is effectively done from the earliest level to college. The results of research that have been conducted previously found that accounting education students are not ready to teach Creative Products and Entrepreneurship courses. This is due to the lack of practice in the field. One solution that can be done is to provide enough provisions for students. The University through the Accounting Education study program has bridged with the establishment of one of the University's compulsory study programs, namely entrepreneurship courses with a load of 2 credits. However, the results of the 2022 research show that this course is not enough to equip students to teach PKK courses. In addition, it is currently an important issue for accounting teachers to develop PKK learning models in accounting. This study aims to identify material needs that need to be prepared to equip accounting education students as prospective PKK teachers. It is qualitative research with participatory action research methods. From this research, several problems were found in PKK learning. One solution that can be done is to hold group discussion forum activities regularly.

Keywords: creative and entrepreneurial products, project-based learning design, vocational high school

1 Introduction

The era of globalization and the opening of world markets has made Indonesia in various fierce and heavy competitions. Indonesia will fall if it does not increase the competitiveness of Human Resources (HR) in global competition. Professional human resources are needed by a country in realizing economic growth. One way to improve the quality of human resources is to provide quality, resilient, and skilled education. Sholihah and Firdaus (2019) suggest that education aims to create competitive individuals and quality human resources. School is one form of formal education in Indonesia. Vocational High School (SMK) is one of the vocational education institutions that plays an important role in producing quality human resources.

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According to Undang-Undang Nomer 20 Tahun 2003 pasal 15, SMK is secondary education that prepares students primarily to work in certain fields. Vocational students are educated about the basic knowledge, skills, and attitudes needed as prospective workers, either to start working in a particular field or to set up their own business or venture. Vocational High Schools (SMK) that are qualified, productive, and ready to work are expected to increase the absorption of competitive labor in today's world of work (Dewi &; Sudira, 2018). Brilianti (2023) explained that SMK is expected to produce students to be able to master skills in accordance with the field of expertise they choose. The Creative Products and Entrepreneurship (PKK) course is one part of group C courses or Productive courses in the vocational curriculum. In the Core Competency, it is illustrated that after the learning process students can carry out certain tasks using tools, information, and work procedures that are commonly carried out and solve problems in accordance with the PKK field of work. Entrepreneurship subjects in Vocational High Schools are expected to be able to create young entrepreneurs. This course is prepared with the aim of encouraging students to be creative in creating a new product on the market, so that students have experience in entrepreneurship. This course is also structured to create graduates who can open job opportunities after graduation, so as to create productive graduates.

PKK subjects require products designed based on student creativity, supported by 21st century learning such as creative, critical thinking skills, communicative and collaborative. In this course, students are also required to be able to be entrepreneurial with various products produced. The results of interviews with teachers of the Institute of Accounting and Finance resulted in findings that the school was experiencing a transition period from the old curriculum to the independent learning curriculum. Meanwhile, in the independent learning curriculum, the learning model used is more inclined to Project Based Learning (PjBL). However, in reality in the field, most teachers still predominantly use a teacher-centered approach. The teacher delivered the material with the lecture method 75%, then the rest was used for question and answer sessions and giving practice questions. Such a learning model makes students play the role of listeners, as a result they tend to be more passive and there is only one-way communication because students are not very involved in the learning process. In certain subjects, students' daily test scores are also still lacking, so they need to be improved again. Merdeka Belajar is a policy program launched by the Minister of Education and Culture of the Republic of Indonesia to return the national education system to the essence of the law by giving freedom to schools, teachers, and students to be free to innovate, free to learn independently and creatively, where the freedom to innovate must start from teachers as drivers of national education (Sherly et al., 2020).

The theory of connectionism pioneered by Thorndike (1874-1949) explains that the construction of various good stimuli will produce a positive response and vice versa (Pamungkas, 2021). This theory places more emphasis on human behavior. The learning process will form a relationship between stimulus and response. This theory is also known as the theory of trial and error. This theory contains 3 main laws (Nur and Noor, 2023), namely: (1) the law of readiness; (2) Exercise law; and (3) law of effect. According to this theory, the achievement of results from any activity requires readi-

ness and practice. The learning process will take place well if the teacher gives his students a good stimulus. The stimulus must of course be contained in the lesson plan, including the selection of learning models, media, materials, assessments, and classroom management.

2 Method

This research was conducted using participatory Action Research (PAR) method. PAR is carried out to obtain data narration and create conditions as expected (Rahmat &; Mira, 2020). This method is used to see, hear and understand the problems that arise in the application of project-based entrepreneurship learning at SMK Negeri Kota Surakarta. The subject of this study was a teacher of entrepreneurship subjects at SMK in Surakarta. This research data was obtained through the implementation of Focused Group Discussion (FGD). FGD is carried out to find meaning according to the understanding of a group (Nurhaini, 2022). FGD activities are used to collect information related to problems experienced by teachers when designing and implementing learning in the subjects of Creative Products and Entrepreneurship. In addition, conducting literature studies in order to find solutions to overcome existing problems. This activity has been carried out in 2022 which explains that several teachers have done PjBL with various variations. The thing that still needs to be resolved is what kind of project-based learning is appropriate to be applied to improve student competence in SMK, especially for the field of accounting. This activity will be held in May 2023. The data obtained will be analyzed descriptively. Descriptive analysis is used to analyze data that has been collected to clarify the facts that occur (Sugiyono, 2017).

3 Results and Discussion

Based on the results of observations and analysis of the application of the PjBL model in entrepreneurship learning, data was obtained that 95% of teachers of entrepreneurship subjects were still confused in applying PjBL. To identify problems and obstacles in the implementation of PjBL in these subjects was carried out with FGD. The FGD was attended by 13 teachers of entrepreneurship courses majoring in accounting and institutional finance. Through the FGD, information on the implementation of entrepreneurship learning in SMK was obtained as follows:

3.1 Curriculum used

Most vocational schools have implemented the independent curriculum, which is 92% and there are still 8% who are still implementing the 2013 curriculum (Figure 1). The emphasis of the adopters of this independent curriculum is the use of the PjBL model. The function of the curriculum is **as a means to measure self-ability and educational consumption**. This is also related to the pursuit of target targets that make students

can easily understand various materials or carry out the learning process. **The 2013 curriculum** generally only focuses on intracurricular or face-to-face, while the **Merdeka Curriculum** uses a combination of intracurricular (70-80% JP) and co-curricular (20-30% JP) learning through the Pancasila Student Profile strengthening project. The similarity between the 2013 curriculum and the independent curriculum lies in the design of the main foundation of the two curricula**, namely the purpose of the National Education System and the National Education Standard, which is** to create a learning atmosphere and learning process so that students actively develop their potential.

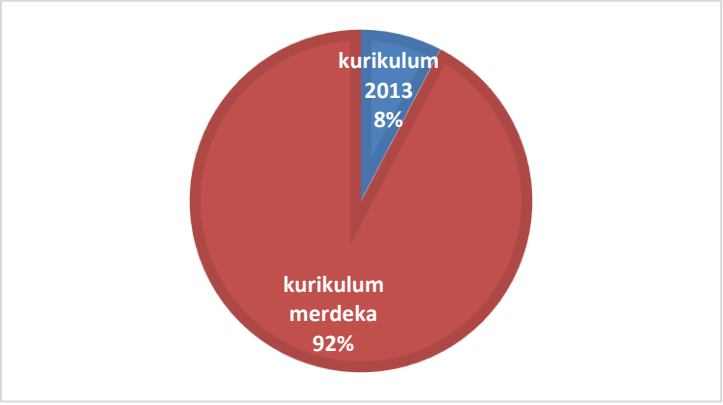

Fig. 1. Curriculum used in entrepreneurship learning in schools

3.2 Implementation of learning

From the results of the FGD, it is known that 8% of entrepreneurship teachers participating in the FGD still have theoretical learning, 69% apply practical learning and the remaining 23% apply theoretical and practical learning (Figure 2). There are teachers who still apply theoretical learning in entrepreneurship subjects thinking that students need a sufficient material foundation before they then become entrepreneurs. For teachers who apply practical learning in entrepreneurship subjects, they assume that what is needed in entrepreneurship is practice in the field, how they need to plan, produce and manage their business. And there are also teachers who provide sufficient theoretical provisions as an illustration before students carry out their business plans.

Fig. 2. Implementation of entrepreneurial learning

3.3 Manufactured products

The implementation of entrepreneurship learning in SMK is entirely still in the form of production and sales practices of goods (Figure 3). The products produced are mostly foods such as snacks such as tempura, fried tempeh, seblak, fried rice, chicken rice, grilled rice, and so on. In addition, there are also drinks such as iced tea, iced coffee, juice, soy milk, mung bean juice drinks and other sachets. And another small part produces and sells keychains, t-shirts, hijabs, brooches, and so on.

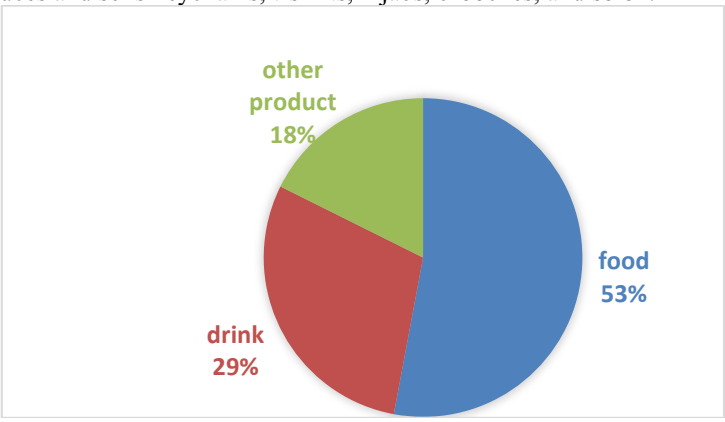

Fig. 3. Types of products produced in entrepreneurial practice

3.4 Business Capital

Project-based entrepreneurship learning cannot be separated from the need for business capital. Most students use personal money as capital for entrepreneurial practice, which is 77%. Some get capital from schools at 15%. There are also those whose business capital comes from personal money and assistance from schools by 8% (Figure 4). Capital is the most important part of business operations. Capital in the form of

money is needed to buy materials to the process of producing products. And to develop a business in the future, creativity is needed. With proper capital management, the entire business plan can run well. The average capital used in this entrepreneurial practice ranges from Rp 100,000,- — Rp 500,000,-

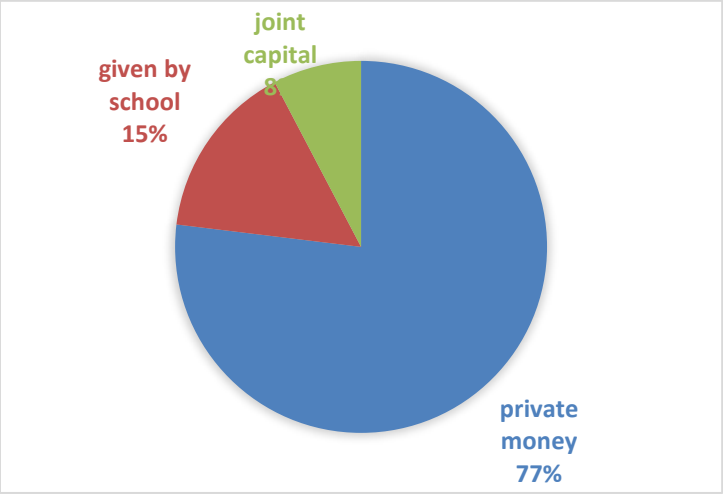

Fig. 4. Capital used for entrepreneurial practice

3.5 Sales strategy

The practice of entrepreneurship in SMK is not only producing goods, but also the practice of selling. The sales strategies that students engage in are word of mouth and social media (Figure 5). This sales strategy is used to attract potential customers so that their products sell well. Some business strategies carried out are by promoting both directly by word of mouth and through social media. Students have begun to pay attention to how to improve product quality, and arrange products on theright side. They also learn how not to run out of stock. When supplies start to run low, there is one person who buys supplies that will run out. And when the products sold are still left, promotions are carried out around the class.

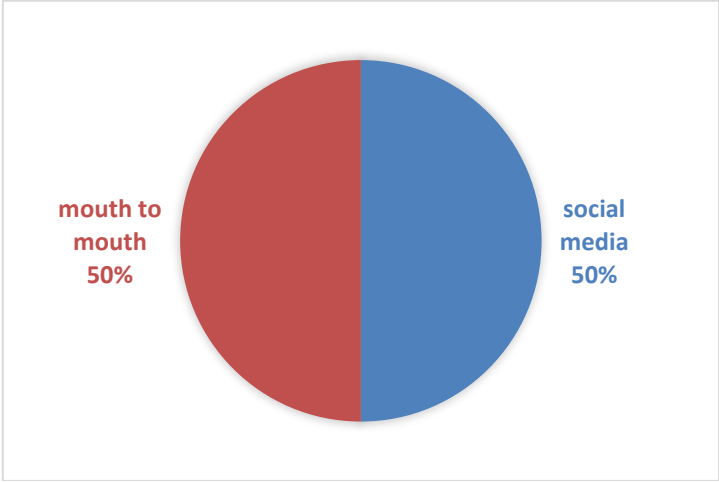

Fig. 5. Selection of sales strategy for entrepreneurial products

In addition to the information above, information on the problems faced by teachers in the implementation of entrepreneurial creative product learning from the results of the FGD implementation is as follows:

1. Teachers have difficulty in implementing the independent learning curriculum
2. Teachers do not understand the design of project-based learning
3. Teachers have difficulty in determining the profile of Pancasila students and their assessments
4. Schools are free to determine entrepreneurial material so that it has an impact on material non-uniformity
5. Students do not yet have an idea of the concept of entrepreneurship
6. Students are kedulitan create entrepreneurial products related to accounting

Several problems were found in the implementation of the independent curriculum. The independent curriculum is thick with the application of several learning models, including: project based learning, problem based learning, discovery learning and inquiry learning (Indarta, et al: 2022). The innovative learning model applied in PKK subjects is PjBL. PjBL in PKK is realized by making business proposals and products (Fitria, 2018). The application of the PjBL model is relatively more successful in building business spirit and critical thinking skills and student engagement. PjBL is a learning system that provides opportunities and space for students to process and manage learning in class by involving many people or project work (Padwa &; Erdi, 2021). In addition, (Padwa &; Erdi, 2021) also mentioned that PjBL is an innovative, creative, student-centered learning model by placing teachers as facilitators and students are given opportunities to be able to develop their abilities. PjBL that has been implemented in SMK can improve students' critical thinking skills (Hari Utomo et al., 2018). This happens because with this learning model students can be active in the learning process, learning motivation increases, and can achieve learning goals. Furthermore, the results of research from (Sumardiana et al., 2019) also stated

that there were significant differences in students' critical thinking skills before and after using the PjBL model. In the expertise program of Vocational High School (SMK) Accounting and Financial Institutions, there are several productive subjects and one of them is entrepreneurship. The PjBL model is to develop students' thinking skills that allow them to have creativity, skills, and encourage students to work together (Hartini, 2017). According to Sani (2015), the PjBL model refers to problem-oriented and learner-centered learning, which means that learning skills occur through projects that students work on in groups. The PjBL model requires students to be active in the learning process while the teacher is only a facilitator. The PjBL model can activate students and provide opportunities to work in groups and help them understand the material through the problem-solving process to complete projects (Rahayu and Sukardi, 2021). According to Surya, et al. (2018) the PjBL model requires students to learn and produce a work, therefore this model can increase student involvement in the learning process, improve students' ability in problem solving, and increase group cooperation. Learning using the PjBL model is a technique that provides innovation in the art of teaching so that students are more engaged. The role of the teacher in this learning model is as a facilitator and provides motivation to students to be actively involved in the learning process. This PjBL model produces projects that are the result of the learning process. With some of the advantages of this PjBL, there are several alternative solutions formulated from this FGD to overcome the above problems, including:

1. To overcome the difficulties in implementing the independent learning curriculum, it is expected that teachers will more often attend training and socialization of the implementation of the independent curriculum which will later be implemented in PKK subjects.
2. To overcome the problem of project-based learning design, teachers can attend training, socialization and several forums to share experiences teaching PKK. In addition, it can be used as an evaluation and improve PKK learning.
3. To overcome the problem of determining the profile of Pancasila students and their assessment, teachers who teach productive subjects are expected to share more often with adaptive subject teachers. This needs to be done because so far the project of implementing the Pancasila student profile has been handed over to teachers of adaptive subjects, both training and application.
4. To overcome the diversity of entrepreneurial material, it is necessary to design the subject matter that needs to be given to vocational students.
5. To overcome the low understanding of students' entrepreneurship concepts, teachers are expected to provide this material at the beginning of entrepreneurship material. Teachers need to provide the concept of entrepreneurship to students for the long-term goal of creating new entrepreneurs. Efforts to create entrepreneurs need to be done to answer the inequality of job availability and the number of productive age population.
6. To overcome students' difficulties in making entrepreneurial products related to accounting is to develop creativity-based entrepreneurship (creativepreneur), technology-based entrepreneurship (technopreneur), and education-based entre-

preneurship (edupreneur). Martiah (2017); Istianti, et al (2022) explained that technopreneurs can increase student motivation and communication skills.

4 Conclusion and Advice

Vocational students have been practicing in the field. They have been able to determine products, markets, as well as simple capital calculations. They are able to make products that have strong appeal in the market. They are also capable of a simple innovation process in their manufacture. The selection of products for entrepreneurial practice is carried out based on the magnitude of market interest. However, it is unfortunate because this entrepreneurial practice is not continued and is still limited to fulfilling the duties of entrepreneurship subjects.

Entrepreneurship subjects at SMK Accounting and Finance Institutions require a PjBL role model that can be used as a guide for learning practices. In addition, the role of teachers as facilitators and motivators is very necessary for this PjBL to succeed. One solution option that can be considered is for entrepreneurship teachers to hold regular FGDs to evaluate the learning that has been implemented. One alternative PKK learning design is to apply PKK learning design based on cretivepreneur, technopreneur or edupreneur to increase motivation, communication and entrepreneurial interest of vocational high school students, especially accounting majors. And hopefully, the success of this entrepreneurship learning opens up opportunities for students to become new entrepreneurs.

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