

# 12. DEVELOPING STUDENT ENTREPRENEURSHIP PROGRAM MODEL

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## DEVELOPING STUDENT ENTREPRENEURSHIP PROGRAM MODEL

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### Abstract

This study aims at developing the Student Entrepreneurship Program (SEP) Model, which is determined by the Ministry of Research, Technology and Higher Education and is carried out at Jenderal Sudirman University at this time. The research is taking place in Banyumas and Banjarnegara regencies and use a qualitative approach. Data are collected through documentation studies, field surveys, and observations. Subjects in this study included all SEP stakeholders at UNSOED such as the Vice Rector of student affairs and their staff, SEP companion lecturers, student groups receiving SEP programs and MSME actors. Data are analyzed using descriptive analysis and presented in narrative and matrix forms. The results show that the development of the model using apprenticeship and development training for SEP participants is proven to be able to improve the ability and competitiveness of students in running a business.

**Keywords:** Student Entrepreneurial Programs, Model Development, Apprenticeship, Training

### 1. Introduction

Entrepreneurship has an important role in economic development. Schumpeter (1934) states that if a country has many entrepreneurs, the economic will develop. Based on statistical data in 2016, Indonesia has population of 252 million<sup>4</sup>, the number of permanent non-agricultural entrepreneurs reached 7.8 million people or 3.1 percent. The entrepreneurial ratio was 3.1 percent. It still lower compared to other countries such as Malaysia (5%), Singapore (7%), China (10%), Japan (11%), and the US (12). This indicates that the mindset of the Indonesian people is still struggling as a jobseeker not as entrepreneurs. To increase the number of entrepreneurs in Indonesia, government has issued Presidential Instruction No. 4 of 1995 concerning the National Movement Promote and Cultivate Entrepreneurship, which mandates to all people to develop entrepreneurship programs<sup>5</sup>. In 2009, the government has launched Student Entrepreneurship Program (SEP) through the Directorate General of Higher Education, The Ministry of Research and Technology.

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Several empirical studies show that there is a positive impact from the existence of entrepreneurship training or education programs at universities for the initiation of new ventures (Fayolle in Graevenitz et al, 2010; Tzachev and Kolvereid, 1999). Thus, the university has the opportunity to develop entrepreneurship from people who have more competencies and abilities to create a business (Edwards and Muir, 2005). The university has a big contribution to develop

entrepreneurial intention. The greater the university's commitment to entrepreneurship, the greater chances to build entrepreneurial intentions of academicians (Bergman, et.al., 2016). Research conducted by Samo & Huda (2019) shows how the influence of government and academic support (universities) upon individual interest in entrepreneurship. Data compiled from 310 Pakistani students show the significant influence of independent variables consist of government and academic support on entrepreneurial interest.

The Student Entrepreneurship Program (SEP) is one of the government programs to give capital grants to students at universities who want to become entrepreneur. This program is a government strategy aimed at forming student soft skills by entrepreneurship education. SEP has a purpose to build entrepreneurial character. Through this program, it is expected that there will be a decline in unemployment. Based on data from the Central Statistics Agency (CSA) it is known that in February 2018 the level of open unemployment from university graduates rose by 1.13 percent compared to February 2017 from 5.18 percent to 6.31 percent. Unemployment from diploma graduates also rose by 1.04 percent from 6.88 percent to 7.92 percent (CSA, 2018). This proves that SEP has not been able to reduce the unemployment rate although this program has already implemented since 2009.

Lestari et al. (2018) found that the Model of SEP implemented at UNSOED are partly inconsistent with the Model determined by the Directorate General of Higher Education and also is not consistent with the provisions in the SEP implementation manual made by the SEP UNSOED. This create a problem in the implementation of the SEP, that new ventures initiated by SEP participants often fail. In a subsequent study, Lestari et al. (2019) found that one of the sources of the failure was the lack of apprenticeship. The purpose of the research was to refine the SEP model at UNSOED and the SEP model from the Directorate General of Higher Education. Through the refinement of the existing model, it is hoped that SEP can support the government's desire to increase the number of entrepreneur students and reduce unemployment in Indonesia.

### *1.1 Apprenticeship and Training Theory*

Cognitive apprenticeship is a theory that explains the process of transferring tacit knowledge. Tacit knowledge is knowledge that is difficult to write down, visualize or transfer from one person to another. Examples of tacit knowledge are the ability to innovate, sales and leadership. This theory formulated by Collins et al. (1987). The theory is a assume that people learn from other by observing, imitating and copying.

Apprenticeship is a system of training that aims to help people that is capable to carry out their profession excellently. Can be implemented by on the job training. In some professions particular, apprenticeship become requirement to obtain license. The Apprentice will learn while working practice of science that is taught by the mentor.

Apprenticeship is very important to carried by the new entrepreneurial because the process of apprenticeship will create learning to build the new skills to the individual. Empirical evidence regarding the benefits of the apprenticeship was found by Adewuyi and Adeniran (2019). In their research in Nigeria aimed at examining the impact of the implementation of the apprenticeship

on entrepreneurial interests and improving business skills, Adewuyi and Adeniran (2019) distributed questionnaires to 200 apprentices at Ogun State Mechanic Village located in Obada Oko. They discovered that apprenticeship can increase the intention for entrepreneurship, skills of the techniques and skills of business on their respondent. The apprenticeship made the apprentice more experienced and ready to enter the business.

To make apprenticeship successful, Pratt (1998) said that the process should active, social, and authentic. Active means that the apprentice need to obtain stimulation both in physical as well as mental. Interaction process through communication between the apprentice and the mentor is very important. Participants involved in the process of making the decision for any activities that are planned in the program apprenticeship. The involvement of this would be a means of learning for participants to be practiced after completion the program.

The learning process in an apprenticeship must also have a social concept. Participants not only interact with the mentor itself but also with the entire components that are involved in the business. Suppose an individual who have intention in the industry of producing chips of bananas, he should be involved in the process of ordering a banana, the selection of bananas, the process of production up to marketing. In the whole of the process, the individual will meet with suppliers of bananas, the workers who produce chips banana and also with the salesman. They need to build a good relationship. The next condition for apprenticeship to achieve the goal is to be authentic. The apprenticeship needs to build a specific knowledge. Efforts for an individual to be different and special compared with other individuals.

Apprenticeship is important since a degree bachelor is not enough for individuals to be success in the business. Many knowledge or skills can not be obtained from the school. Knowledge or skills can only be obtained if individuals learn through practice or what is referred as learning by doing. Apprenticeship at essentially the embodiment of learning by doing. The benefit of apprenticeship for entrepreneur not only to initial the business but also to keep sustainability of the business. New entrepreneur can learn strategy of the other company that has success to run their business for a long time.

### *1.2 Training Theory (Human Capital Theory)*

One of the theories that explain the benefits of training for an individual is the Human Capital Theory. Human capital is defined as skills that are identically beneficial to the company. It includes training which is followed by the employees. The theory is the first time formulated by Becker in 1962. Human capital theory discusses the activities of the training at the company. Assumption of the theory is first, the chance to survive in a business is influenced by the ability of the owner of the business. The second assumption is experiences will foster knowledge and skills (Bruederl et.al 1992).

According to the theory of human capital, education and training are an investment for productivity in the future. Education and training are not to be regarded as the consumption of resources exclusively, but has the benefit of improving competitiveness, ability to earn profits for the company as well as a payment which is good for the employees. Although the benefits are obvious, but the investment in human capital in the form of the provision of training, different



with investment in others physical asset. Investment in human capital is not only dependent on the decision of the company as the investor but also need approval of the individuals who will receive the training.

Training is considered as an investment that brings up costs and benefits. Cost and benefits of training can be calculated by the present value and internal rate of return. In 1962, Becker studied the effects of training on the incentive of two types of human capital on the market power that is competitive, to the incentive of training. The first type is human capital that can be transferred to other companies and the second type is human capital with specific skills that can not be transferred to other companies. Becker (1962) find that the training received by human capital of the first type will give impetus that great for them to bear the cost of the training itself and trying to obtain the of training benefits that a maximum. While the second one, did not appear incentive to bear the cost of training such as on human capital in the first type. Costs and benefits of the training will be borne jointly by the employee and the company.

There are two types of training. First on the job training and secondly off the job training. On the job training is training in a structured and carried out at the work place. On the job training, the mentor will spend time with people who are trained to learn a set of skills that have been determined. Meanwhile, Off the job training is the provision of skills that are carried out outside the workplace. Off the job training can be focus group discussions, tutorial classes or workshops. The methods for providing training can be through group training, mentoring, simulations, seminars, field trips and e-learning. All methods have identical benefit to improve the skill of the participant.

## **2. Method**

### **2.1 Types of Research and Respondent**

This research is a case study on the Student Entrepreneurial Program (SEP) at Jenderal Soedirman University (UNSOED). In the case study, interview participants are invited to tell the story of their experience, with those chosen representing different levels within the same organization or different perspectives of the same situation or process to permit depth of perspective. The flexibility of the case study approach and the emphasis on understanding the context of the subject being studied allow for a richness of understanding (Cooper & Schlinder, 2014).

The purpose of this research is to refine the Student Entrepreneurial Program model. Informant in this research were Vice-Rector for Student Affairs, Heads and staff of the Academic and Student Affairs Bureau, Heads and staff of the Student and Alumni Development Section, Heads and staff of the welfare and Alumni Section, Managers, SEP managers, and SEP UNSOED administrative staff, groups participants of UNSOED SEP programs in 2018 and 2019, as well as Micro, Small and Medium Enterprise (MSME) in Banyumas and Banjarnegara Regencies.

### **2.2 Data Collection Technique**

Data required in this study include primary and secondary data. Primary data were collected by in-depth interview technique, Focus Group Discussion (FGD), observation and survey on SEP

stakeholders. Secondary data collection techniques including documentation and review of literature related to entrepreneurship and SEP in Jenderal Soedirman University.

### **2.3 Data Processing**

We measured the benefit of apprenticeship and training for a participant of SEP before and after following the programs. We used comparison to process the data and data analysis was presented in narrative and matrix form.

## **3. Results**

### **3.1 The Result of Focus Group Discussion**

The implementation of SEP involving study programs is quite heavy because the study program already has a large responsibility burden so if it is added again by taking care of SEP it is considered not possible especially with the financial condition of SEP management that is less supportive. If the apprenticeship is carried out before 70% of the funds are disbursed and is applied as a condition for the first stage of the disbursement of funds, it is feared that it will disrupt the business process of SEP participants. In this regard, an internship can be made after the first tranche of funds has been disbursed, and the apprenticeship report can be one of the conditions for the second tranche of business funds. Internships should be carried out in the Banyumas Regency area so as not to interfere with student lectures. In addition, in the apprenticeship activities SEP participants are not required to routinely visit the apprenticeship place within a certain period, but as long as SEP participants can understand about the management carried out in the apprenticeship places, the apprenticeship activities are deemed sufficient. The output of the apprenticeship activity is an apprenticeship report accompanied by proof of an official statement stamped with Rp. 6,000 from the owner of the MSME's where the apprenticeship states that the SEP participants have actually carried out the apprenticeship activities.

Business development training is needed, such as product packaging and labeling training, training in managing government industrial permits, National agency of drug and food control of Republic of Indonesia, halal certificate management from Indonesian council of Religious scholar, legal entity management, online marketing training and so on. This activity is carried out before students submit their final report. This is needed so that the business run by students can really be continued after the program is finished. With this business development training given, students participating in the SEP program have been given sufficient provision when they develop their business after completing the program.

Propose to the leadership of UNSOED to build a student entrepreneurship center at the location of the Nature Lover Student Environmental Guiding Unit (UPL-MPA) located on Jl. HR. Boenyamin Purwokerto and move the Student Activity Unit to another place. This location is seen as a strategic location for the promotion and sale of SEP student products. The results of SEP student production must be marketed or promoted at the Student Entrepreneurship center. And the last suggestion from FGD partisipant is asking all components both at the level of study programs, faculties and universities to buy SEP student products in each activity. The UNSOED

academic community is a very large product market. Therefore, if the head of study programs, faculties and universities also help product sales by requiring all components to use SEP student products, student business will develop.

### 3.2 Development of Student Entrepreneurial Program Models (SEP)

Figure 1 shows the Student Entrepreneurial Program Model from the Ministry of Research, Technology, and Higher Education in Indonesia. Based on the SEP Model in figure 1 it can be explained that students as SEP program inputs will receive training, follow apprenticeship, and arrange business planning. One group of SEP participant will get a maximum fund of 8 million to set up a new business. The group will also get sustainable integrated business assistance by Universities and MSMEs.

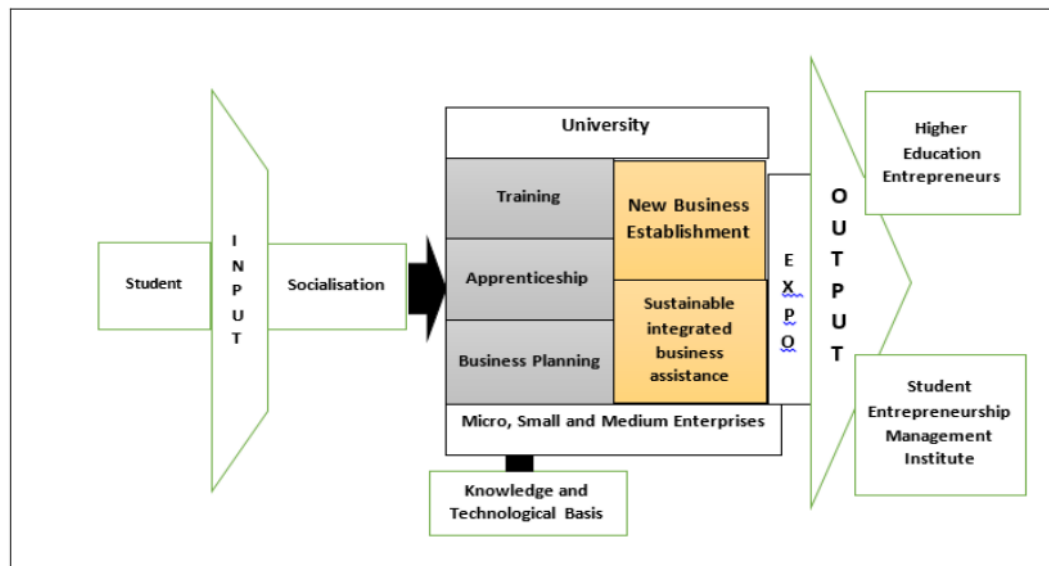


Figure 1. Entrepreneurial Student Program Model from Ministry of Research, Technology and Higher Education

The model established by Ministry of Research, Technology and Higher Education in its implementation was simplified again by the SEP manager at UNSOED as shown in Figure 2. Figure 2 shows that Jenderal Soedirman University eliminated apprenticeship activities in the implementation of the SEP program. The reason for the elimination of the apprenticeship activities was due to difficulties to set the best time for implementation of the apprenticeship program that could conflict with student activities such as course and other mandatory campus activities.

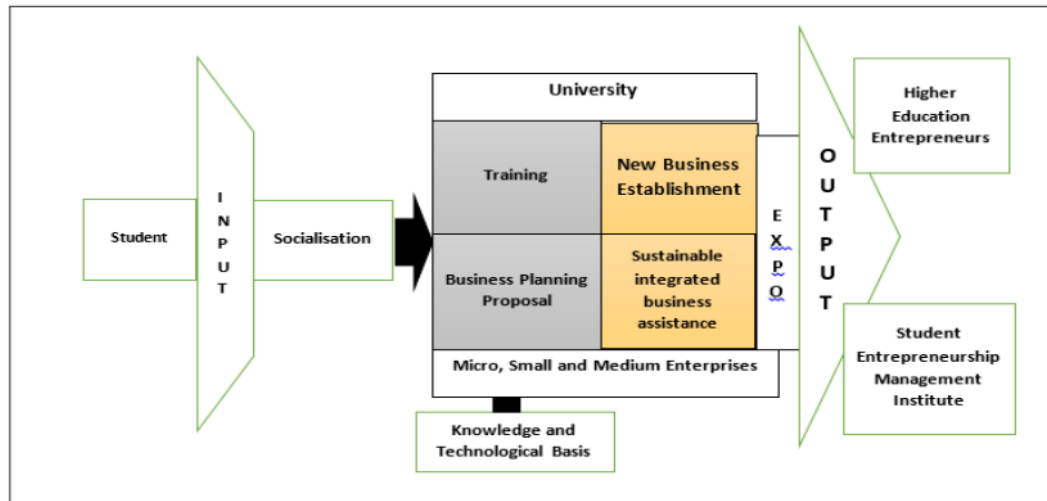


Figure 2. Model of Student Entrepreneurial Program at UNSOED

The next model development was carried out by involving SEP UNSOED stakeholders in Focus Group Discussion (FGD). This activity involved the vice rector for student affairs and Alumni, UNSOED student affairs officials, SEP UNSOED managers, SEP participant, and Micro, Small and Medium Enterprises (MSME). Based on the results of the FGD with the SEP stakeholders, several inputs can be obtained related to the design of the model development that have been prepared, including: First, to carry out the apprenticeship program before 70% of the funds are disbursed. The purpose of the apprentice was not to give provision for the apprentice in building a new business but to share a tacit knowledge to keep the sustainability of the business. The apprenticeship report can be one of the conditions for the second tranche of business funds. Apprenticeship should be carried out in the Banyumas Regency to avoid disturbing the student activity in campus. In addition, the apprentice is not required to routinely visit the apprenticeship place within a certain period, but as long as SEP participants can understand about the management carried out in the apprenticeship places, the apprenticeship activities are deemed sufficient. The output of the apprenticeship activity is an apprenticeship report accompanied by proof of an official statement stamped with Rp6,000 from the owner of the Micro, Small and Medium Enterprises (MSME).

Apprenticeship very necessary to be carried out in order to realize the objectives and benefits of the Entrepreneurial Student Program as written in the UNSOED Entrepreneurial Student Program handbook every year until 2018. The handbook states that the objectives of the Entrepreneurial Student Program are: 1) Improving soft skills and student business soul to encourage starting and developing businesses supported by capital and assistance in an integrated manner; 2) Strengthening the relationship between MSMEs and the campus and also providing access to information and technology of the universities; 3) Improving the ability of institutions



in developing entrepreneurship education; 4) Strengthening relations between the academic and the business, especially MSMEs; 5) Generate young entrepreneurs, job creators and future successful entrepreneurs. With the removal of the apprenticeship activities, the second and fourth objectives of the SEP activities will certainly not be achieved.

Secondly, business development training is needed, such as training for product packaging and labeling, managing product license such as license from Food and Drug Control agency, MUI for halal certificate, legal entity management, online marketing training and so on. Most of the participants of SEP have not know the process to ask such license from the institution. This activity is carried out before students submit their final report. This is needed to convince the sustainability of the business after the program is finished.

Third, propose to the university to build a student entrepreneurship center in a strategic location. The results of the production of SEP students must be marketed or promoted at the Student Entrepreneurship center. Fourth, it requires all components at the level of study programs, faculties and universities to purchase SEP student products in every activity. The UNSOED academic community is a very large product market. Therefore, if the head of study programs, faculties and universities also help sales of products by requiring all components to use SEP student products, student business will develop. Based on the results of the final FGD with all SEP stakeholders other than MSMEs at UNSOED, the final design model developed is shown in Figure 3.

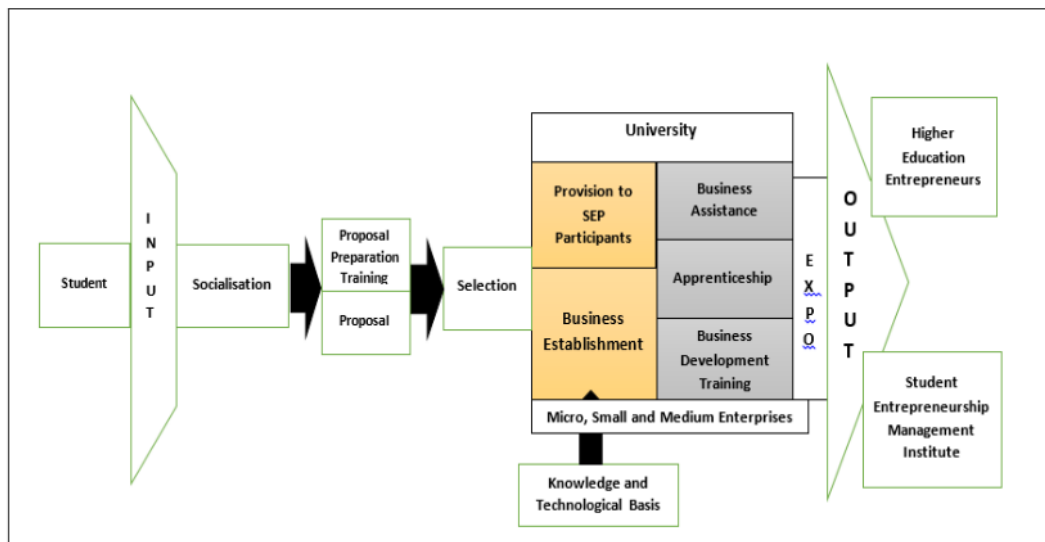


Figure 3. Development of the Entrepreneurial Student Program (SEP) Model

Figure 3 proposed the model development of SEP. There are some stages of implementation SEP include: 1) socialization to all UNSOED students; 2) training preparation to prepare proposals that will be submitted for funding; 3) selection; 4) debriefing prospective SEP participants; 5) Disbursement of venture capital funds that will be used for business establishment; 6) business implementation and business assistance; 7) Apprenticeship to learn how to keep the sustainability of the business; 8) Business development training; 9) expo activities; and 10) preparation of the final report. Student Entrepreneurship Management Institutions will encourage the growth of entrepreneurial spirit in Higher Education to build competitive entrepreneurs.

The first stage is socialization. Socialization activities involved various parties, such as University Leaders, Faculties, and student activity units. Media that can be used in socialization include banners, posters, leaflets, and websites managed by UNSOED at the university, faculty, and study program levels. Managers should also distribute circulars regarding the implementation of PMW to the smallest units in UNSOED so that information about PMW can be spread evenly.

In the second stage, the committee of SEP are doing a Proposal Preparation training. The purpose of this activity are to collect data as well as motivate students to attend PMW. The proposal preparation training discussed in detail about the criteria for a good proposal and in accordance with applicable provisions as well as about the business planning that will be carried out. The trainees were also motivated by presenting successful entrepreneurs to tell how to run a good and profitable business. The next stage is selection phase of prospective PMW participants. There are two kind of selection, administration and quality of proposals selection, and selection of PMW proposal presentations for participants who passed the Phase I selection.

The business supply phase includes the training and internship stages. Training and apprenticeship activities are carried out on the basis of Science and Technology. Training activities are provided to equip PMW participants in managing their business well, including marketing management, human resource management, financial management, and production management so that the business undertaken is expected to produce profits and last a long time. In addition to training activities, PMW participants are also required to carry out apprenticeship activities in SMEs that are appropriate to the line of business they are running. The apprenticeship activity aims to provide a real picture of the running of the business while providing knowledge about how to run a business and how to overcome the problems faced. Each group conducting an internship is obliged to provide a report to further become a requirement for disbursement of venture capital funds.

In the stage of business implementation, assistance, and development, The business is carried out in accordance with the plans that have been prepared previously. Each team try to get a monitoring from the lecture while running their business. The role of the accompanying lecturer must be maximized by setting a minimum amount of guidance activities as a condition for disbursing the next stage of venture capital funds. Intensive assistance is expected to increase business profit and develop its business.

The monitoring and evaluation (monev) activities in each SEP group participant were carried out after each group's team had disbursed the 80% venture capital funds. The monitoring and evaluation activities on the group team are carried out by the SEP management team.

The next two activities are expo and final report. The expo activity was held twice, at the UNSOED expo and at the graduation ceremony for students. During the expo, participant must show their product and explain the production process until distribution to the customer, as long as they join SEP program. In Final Report Compilation, the Group Team must compile and submit a final SEP report in December containing a final report paper, Activity Log Book, financial reports accompanied by a photocopy of SEP shopping receipts, and samples of SEP products and/or photos of products/services according to the proposal.

### *3.3 Testing for the Proposed Model of SEP*

Model test were conducted on six SEP student groups in 2019. These six groups have different activities. The first group namely Budanpro Tobat has a business in the cultivation and production of medicinal plants. The second group, namely Budi Jati, has an oyster mushroom cultivation business. The third group, Artofoph, produce a paper product that has been created in such a way as to be special. The fourth group, namely Azalean Collections, has a business producing hijab products in accordance with the current trends. The fifth group, Banana Bread, has a business producing banana bread with a variety of toppings. The sixth group, Your Concept Became True, has a Design and screenprinting business.

Apprenticeship is carried out at MSMEs that have the exact same type of business or have the same characteristics. The Budanpro Tobat group conducted an apprenticeship at the Baturaden Horticultural Seed Garden, Budi Jati at D'Jamur Dieng Berseri Banjarnegara, Artofoph at Kurnia Quilling Souvenir Purwokerto, Azalean Collections at Ping Online Shop Purwokerto, Banana Bread in the Bakoel Djajan Society in the Djajan Market and the Concept of Arctic Market-Design in Purwokerto Printing Sector. Based on the reports from each group it is found that although the apprenticeship is not carried out at a certain time, and the implementation time is flexible for the students (on average it implements for one week), but it is very meaningful for them. Benefits reported from the apprenticeship activities include: 1) Increasing student knowledge about production management practices, human resource management, marketing management and bookkeeping of business activities in business that have actually been run successfully; 2) There can be a close relationship between students and MSME actors, and also build a networking between them; 3) Strengthening relations between Jenderal Soedirman University and MSMEs around the campus.

After testing the apprenticeship activities, a testing is also conducted on business development training for SEP participants. Training is carried out to strengthen the ability of students to manage businesses. The material provided in business strengthening training included packaging and labeling of products, management of license from Food and Drug Control agency, MUI halal certificate management, legal entity management, online marketing, business canvas model, and challenges in entrepreneurship. The training begins with a pretest related to knowledge about business management and development.

When training is completed, participants are given a post test to find out whether the business development training has succeeded in increasing management knowledge and business development. The comparison of the results of the pretest and posttest in the business strengthening training is shown in table 1. In the business development training the test group was added with 3 groups of SEP students in 2018. The purpose was to convince the benefit of business development training.

Based on the results of the post test, it is known that the knowledge of SEP participants who participated in business strengthening training increased significantly from the conditions during the pre test and after the training. This proves that business development training is very useful in order to increase their knowledge in developing business products that have been produced.

### References

- Adewuyi, Titilayo. & Ademola Adeniran. (2019). Impact of Apprenticeship Training Scheme on Employment. *International Journal of Scientific Research in Social Sciences and Management Studies*. Vol. 4., No. 1., July.
- Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70 (5).
- Bergmann, H., Hundt, C., & Sternberg, R. (2016). What makes student entrepreneurs? On the relevance (and irrelevance) of the university and the regional context for student start-ups. *Small Business Economics*, 47(1), 53–76
- Bruederl, J., Preisendoerfer, P., Ziegler, R. 1992. Survival chances of newly founded business organizations. *American Sociological Review*, 57: 227-242
- Collins, A., Brown, J. S., & Newman, S. E. (1987). *Cognitive apprenticeship: Teaching the craft of reading, writing and mathematics* (Technical Report No. 403). BBN Laboratories, Cambridge, MA. Centre for the Study of Reading, University of Illinois. January.
- Edwards, LJ & Muir, EJ. (2005). Promoting Entrepreneurship at the University of Glamorgan through Formal and Informal Learning. *Journal of Small Business and Enterprise Development*; 12, 4; ABI/ INFORM GLOBAL. Pg
- Graevenitz, G., Dietmar Harhoff & Richard Weber (2010). The effects of entrepreneurship education. *Journal of Economic Behavior & Organization* 76; 90–112
- Lestari, Sri, Laeli Budiarti, & Aldila Krisnaresanti. (2018). Problem Identification on the Implementation of Student Entrepreneurial Program. *European Journal of Business and Management*. Vol.10, No.2
- Lestari, Sri., Aldila Krisnaresanti, & Laeli Budiarti. (2019). Using CIPP Model to Evaluate Student Entrepreneurship Program (SEP). *European Journal of Business and Management*. Vol.11, No.15



- Pratt, D. D. (1998). *Five perspectives on teaching in adult and higher education*. Malabar, FL: Krieger Publishing Company
- Schumpeter, J. (1934), *The Theory of Economic Development*, Cambridge, Mass: Harvard University Press
- Samo. A. Hussain & Noor Ul Huda. (2019). Triple Helix and Academic Entrepreneurial Intention: Understanding Motivation Factors for Academic Spinn-off Among Young Researcher. *Journal of Global Entrepreneurship Research*. 9:12
- Tkachev, A., Kolvereid, L., (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development* 11, 269–280.

## 12. DEVELOPING STUDENT ENTREPRENEURSHIP PROGRAM MODEL

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