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Model of Talent Assistance to Create a New Entrepreneur

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Abstract The aim of this study was to (a) detect new potential of student entrepreneurship, (b) empower students' entrepreneurial potential, (c) facilitate the development of student potential, and (d) determine the effectiveness of entrepreneurial learning models. This was conducted through the use of 20 students from a population of 120 industrial engineering students offering entrepreneurship courses and the data used were collected through interviews, direct observation, questionnaires, literature study, and documentation. The stages involved in the implementation of the research include (1) recruitment of tenants in entrepreneurial learning, (2) conducting reliability and validity tests on questionnaires for 20 students, (3) implementing the best learning model, (4) implementing fingerprint activities according to talent for 120 students, (5) providing treatment and assistance, empowerment, and facilitation of potential participants through the concept of DEFE (Doing, Empowering, Facilitating and Evaluating), (6) empowering potential by exploring, assisting, and facilitating the business interests of tenants through business plans, business models canvas, and SWOT analysis, (7) providing treatment and evaluation of the results of assistance/empowerment based on the trend of business development results of each tenant (student) observed for two months. This was conducted with a population consisting of 120 tenants that received material guidance and entrepreneurial empowerment. Twenty of them were further taken as samples and divided into two groups, each consisting of ten tenants. The experimental group consisted of tenants with business potential while the control group consisted of tenants with no business potential. The trend of business development between the two small groups was compared and based on direct observations for two months, the experimental group showed the tendency to have a higher business development than the control group. The students showed talents in academics, music, touch kinesthetic, kinesthetic motion, and language while the mental and character observed include having (a) a consistent potential for business, (b) mental accumulation, (c) logical thinking, (d) work, (e) kinesthetic touch/motion, (f) visual work, (g) never giving up, (h) interpersonal relationship, (i) intuitive imagination, (k) tenacity and perseverance, (l) passion, (m) mastering technology, (n) independence, (n) creativity, (o) competence, (p) knowing strengths and weaknesses, (q) communicative, and (r) managerial. Therefore, talent-based entrepreneurship learning through mentoring models in this study has the ability to improve mental capacity, character, enthusiasm, and business behavior to create new entrepreneurs according to respective talents.

Keywords assistance, business, creating, entrepreneurship, new, based, potential

Introduction

Building a mental and new entrepreneurial character is not easy. It requires methods, tools, strategies and appropriate models to achieve goals effectively and efficiently as observed in the companion team of business entrepreneur learning models at the Muhammadiyah University of Surakarta (UMS) [1]. For seven years, this team has been formulating ideas oriented towards producing independent graduates with the ability to create business opportunities. The university has 34,000 undergraduate and postgraduate students (per 2019) and from an average of 5,000 graduates per year, only a few become entrepreneurs. As the largest private tertiary



institution in Central Java, UMS is required to be able to produce competent graduates according to fields of study and expertise, with the ability to compete in the job market, and independent.

However, the low level of interest shown by the graduates to become entrepreneurs led to the development of the entrepreneurship training programs by the lecturers, students, and several organizations within the scope of the university. This can be conducted through self-development programs, entrepreneurship learning, training, workshops, seminars, apprenticeship programs to industry and businesses, the addition of soft and hard skills, and the feasibility of entrepreneurship studies.

In 2012, UMS established the Entrepreneurship and Business Incubator Center under the coordination its LPPM to conduct partnership activities, training, and devotion of lecturers and students to Small and Medium Enterprises (SMEs) around the campus. It was also charged with the responsibility of providing entrepreneurship development assistance programs to people on and off-campus.

These activities provide positive feedback on the development of an entrepreneurial spirit among UMS students, provide real experience in the labor market, open job opportunities, and strengthen partner relationships between UMS and its SME partners [2]. The combination of entrepreneurship courses, methods, tools, strategies, appropriate entrepreneurship learning scenario models, and the concept of business incubators has the ability to create an independent tenant. Therefore, the UMS Business Incubator concept is used as a tool/method/ strategy to increase student awareness (tenant) on the importance of entrepreneurship and the empowerment models were developed by conducting, empowering, facilitating, and evaluating certain activities to create tenant empowerment and professionalism [3-6].

This research was conducted on 20 students of the Industrial Engineering, Faculty of Engineering, UMS, and the respondents were tested with the model discovered by the entrepreneurship companion team to produce (a) a valid, good, and fit assistance model, (b) entrepreneurship learning model manual, (c) entrepreneurial products in the form of product sales showrooms, (d) a reliable, effective, valid, and goodness-of-fit potential-based entrepreneurship learning assistance model, and (e) prospective new entrepreneurs that support programs, plans and strategies of the university and government [7].

The potential-based entrepreneurship mentoring model was created to recognize and enhance the students' potential to achieve success in the future and was initiated through a fingerprint device that detects entrepreneurial mental indicators.

This research is considered important because (a) it is supported by a technological potential detection tool for entrepreneurial learning, (b) there is limited research on the concept of potential-based assistance, and (c) new entrepreneurs in the education sector needs to be mentored with the aim of increasing tenant independence [8]. Moreover, the changes in the technical implementation are considered as a concept innovation which led to the "strengths of the entrepreneurial empowerment model" and innovative steps for model development. The advantages include independence (without government intervention), easy to be operated (can be used by anyone, whether practitioners or academics), visible (has a vision based on potential tenants), acceptable (even in different ages), flexible (applicable in various levels of education either formal or informal), and learning scenarios (can be layered or integrated with entrepreneurship courses).

Therefore, this study aimed to (a) implement the entrepreneurship learning assistance model based on students' potential, (b) produce graduates with entrepreneurship independence by comparing control and experimental group members, and (c) detect students' potential early on. It has been reported that human talents need to be developed to achieve its potentials [9] which consequently produces the 4Es - enjoy, easy, excellent, and earn required to increase comfort, ease of doing business, excel and be more productive [10-11]. According to Chan [12], tenants develop respective talents and gifted children are defined "as those with exceptional achievements and/or potential in one or more of the following areas, (1) general intellectual abilities, (2) specific academic aptitude, (3) creative or productive thinking, (4) leadership ability, (5) visual and performing art, and (6) psychomotor abilities".

The benefits of this research are to (a) find out the effectiveness and positive impact of the application of entrepreneurial learning models to experimental group students, (b) produce learning concepts with the ability to improve business mentality, and (c) produce a good and valid empowerment model able to create new entrepreneurs according to potential.



Theory

1. Incubation

According to Musa Hubeis (2009) [3], generating entrepreneurship through incubation assistance has enormous opportunities. In the medical profession, incubation is defined as the process of maturation of a symptom or the growth rate of the fetus in the mother's womb as well as the provision of different treatments for babies born prematurely by medical personnel. Moreover, the concept is also defined as a tool, means, or media to enhance growth, value benefits, and development.

It is also possible to apply the entrepreneurship assistance model to both formal and informal education. This concept is developed from the innovation of existing mentoring models such as (a) new entrepreneurs in the education sector, (b) assistance of industrial and business economic investment in Small and Medium Enterprises (SME) industry sector, and (c) agribusiness empowerment in agriculture. These are oriented towards the development of valid, good, fit, and applicable model concepts. The entrepreneurship learning assistance model is interpreted by strengthening the potential through the guidance of learning scenarios. The mentoring model has been tested and found to predict the tendency of student business behavior while the incubator assistance model is a forum for development, guidance, supervision in terms of business and technology in the context of developing new strong and independent entrepreneurs professionally. The forum is also a means or medium to increase the independence of participants (tenants) in achieving better entrepreneurial skills [13]. Furthermore, mentoring is oriented towards building students' entrepreneurial mentality to manage and utilize knowledge and technology such that "incubating organizations are part of wider initiatives aimed at stimulating and supporting entrepreneurship" [14]. John [1]5 further explained that "incubators are generally perceived as a kind of infrastructure geared to support and nurture the establishment and development of small, and medium-sized enterprises". Another interpretation shows that "business incubator are specific entities that support entrepreneurs in starting their business lives" [16].

2. Empowerment

The key to successful implementation of an entrepreneurial assistance program is empowerment. However, since incubation activities include forum, means, or strategic media to empower new entrepreneurs, the aim of the program is to educate prospective entrepreneurs on the requirements of doing business. The concept is further defined to include "activities directed towards increasing the entrepreneurial capacity of prospective learners" and "to possess the ability to see and capture business opportunities, gather resources needed to take advantage and take appropriate action to ensure success" [17]. Empowerment is a very popular term used in improving the economic level and quality of human life characterized by quality, self-mapping, and motivation [18-19]. Jinett [20] also stated that a business incubator is used specifically to design and prepare young entrepreneurs without enough facilities and to ensure new businesses reduce expensive costs by leasing "resource station" which is the developer of centralized human resources. Faire [21] further defined the concept of empowerment to be the "the process of improving" while Decache [22] said it is "an interactive process between one person to another to provide power/strengthen". It was also found that "empowerment in education does not only eliminate the problems encountered by learners during the learning process but also directed towards obtaining and reinforcing psychosocial skills for the learners" [23].

Successful empowerment is characterized by identity and skill improvement conducted through the use of special methods [24]. Anderson [25] further reported that empowerment is an educational process designed to develop knowledge, skills, attitudes, and awareness of the ability of an individual to take certain actions efficiently.

3. Counseling and Guidance

Counseling is a dynamic process to disseminate innovations, information, knowledge, and skills useful to improve the quality of life of participants [2]6. Pittman [27] further showed that "the goal of good counseling is to move people up or down the tiers to help them match their needs to services". This can be conducted through assistance, guidance, or the combination of the two. Moreover, mentoring is a term developed by government



institutions since the 1980s from the word mentor, which refers to partners and it involves assistants (subject 1) and participants (subject 2).

According to McKeown [28], thereare certain statements used by organizations to describe mentor and these include someone that (a) supports another to achieve growth, (b) shows concern for an individual, and (c) concerned with the general development of the protégé rather than focusing on the job alone. Moreover, "guidance is generally defined as a developmental-orientated relationship existing between a senior and junior or peers which involves advising, role-modeling, sharing contacts, and giving general support" Fayolle [29]. Dunn [30] argued that "a successful guide provides two things - inspirational and practical help".

4. Methods of Implementing Entrepreneurial Assistance

Mentoring program material is not only delivered verbally in the classroom, but also through actions, communication via technology, seminars, public lectures, discussions, participatory interactive, and also through the use of PAIKEM GEMBROT method which is a learning process aimed at developing the skills, attitudes, and understanding of various sources, learning aids, and the use of the environment.

PAIKEM GEMBROT stands for means Active, Innovative, Creative, Effective, Fun, Joyful and Good Learning. It is defined as a learning approach used in conjunction with certain teaching methods and media accompanied by structuring the environment to make the learning process active, innovative, creative, effective, joyful, and weighty [31]. However, active learning refers to an atmosphere of acquiring knowledge where students ask questions and express their opinions while innovative learning aids students' innovation and creativity to increase participation in learning.

Moreover, creative learning is varied and involves the design or creation of a particular thing and writing of ideas in a script. The effective part of the method involves the achievement of basic competency in learning design while the fun is related to increasing students' learning interest. The joyful aspect gives rise to the excitement and motivation while the weighted part meets all the material contained in the subject of entrepreneurship, under the objectives to be achieved based on competency standards.

It is important to state that fun learning is the key to the success of the mentoring program due to its ability to make students active both inside and outside the classroom and improve the quality of the relationship between them and their teachers, thereby, making it easier for the students to acquire knowledge and skills. PAIKEM GEMBROT allows participants to conduct several activities required to develop attitudes, understandings, and skills in the sense they are not merely "fed by" a companion. Some of the assistance methods implemented were (1) plus lecture, (2) discussion, and (3) demonstration.

4. Potensipreneur

According to Musrofi (2010) [10], talent determines passion and success while strength is a unique combination of knowledge, skills, and talents. Moreover, talent is a natural power to do something very well as well as a repetitive mindset, feeling, or behavior that can be used productively. According Mr. Kazuo Murakami in [10], a geneticist, argued that each person is unique and no two sets of genes or genomes are the same. Our genomes are similar, but no two people have the same genome. This difference is manifested not only in the face or appearance of a person but also in nature and abilities.

5. Indicator of Mental Character of Business

Character is the accumulation of personality and nature of an individual formed innately and from the environment. According to fingerprint detection, good entrepreneurial mentality character includes (a) consistency in business, (b) mental accumulation, (c) logical thinking, (d) creating, (e) kinesthetic touch/motion, (f) visual work, (g) mental challenges/never give up, (h) interpersonal relationship, (i) intuitive imagination, (k) tenacity and perseverance, (l) enthusiasm, (m) mastering technology, (n) independence, (n) creativity, (o) competence, (p) knowing personal strengths and weaknesses, (q) communication, and (r) managerial. These eighteen indicators were used as items on the questionnaire to assess entrepreneurial mental development.



6. The Tenant Assistance/Mentoring Concept

The concept and incubation process of developing entrepreneurship learning empowerment includes the DEFE model of Doing, Empowering, Facilitating, and Evaluating which aims to create a new entrepreneurial mentality as shown in Figure 1.

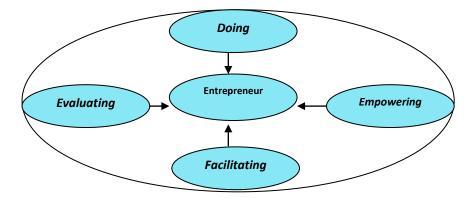


Figure 1: The concept of tenant assistance/mentoring model

Figure 1 is a concept of tenant assistance incubation model developed with four main elements of (1) Doing, (2) Empowering, (3) Facilitating, and (4) Evaluating aimed at developing new entrepreneurs according to their respective potentials [2]. Doing means tenants experience direct action in making a business plan, SWOT analysis, and business model canvas, and conducting business activities according to potential. Empowering means activities to increase the capacity of tenant businesses as prospective entrepreneurs, accompanied by assistants to be empowered, guided, and directed to explore their business capabilities. Furthermore, facilitating involves providing assistance in the form of capital, enthusiasm, and direction to tenants while evaluating involves assessing the effectiveness of achieving an activity.

Research Methodology

1. Research Object

The objects were 120 UMS Industrial Engineering students that participated in the entrepreneurship learning assistance program funded by the Research and Technology Research Center of PUPT (*penelitian unggulan perguruan tinggi*/flagship research of higher education). The sample consisted of 20 students divided into control and experimental groups, each consisting of 10 students. The experimental group included those with business talents while the control group was made up of those without it.

2. Data Collection Method

Data was collected through questionnaires, field observations, literature studies, documentation, and interviews with tenants and the data obtained were analyzed using reliability and validity test. This was followed by a t-test conducted to determine the talent in the sample.

Data Analysis Method

1. Model Development

The research and development method is used to produce certain products and also to test the effectiveness of the model [32]. Sukmadinata [33] further explained the concept as a process to develop a new product or improve existing products. Borg and Gall [34] reported that it is a process used in developing or validating products used in education. The model used in this study was developed according to the guideline proposed.

2. Test Model

The models in conformity with the analysis requirements are called valid models and confirmed to be effective when tested in the field if it has the ability to increase (1) empowerment and (2) the potential of participants .Model trials were conducted using Quasi-Experiment type research which was reported by Sukardi [35] to



involve humans and the achievement of results is not always influenced by treatment. This method considers other factors outside treatment affecting changes in the behavior of research subjects and the sequence of analysis includes test design, sampling techniques, data collection techniques, and data analysis techniques.

3. Test Design

The design step used in this study was the non-equivalent control group design. It involved the use of two treatment groups - experimental and control both of which received the same potential development model treatment. However, the experimental group had students with business talent while the control group had those without it, and the trial design is shown in Figure 2.

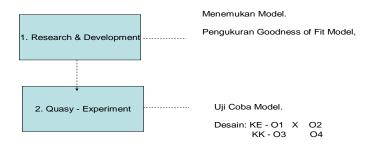


Figure 2: Research Design

Description:

O1 is the initial observation in the experimental group.

O2 is the final observation or the second observation after treatment in the experimental group

O3 is the initial observation in the control group.

O4 is the final observation or the second observation in the control group

X is treatment

KE is the Experiments Group

KK is the Control Group

Figure 3 shows the treatment was in the form of learning through formal short education with the incubation model. KE was subjected to a potential development learning model and has potential entrepreneurs while KK was also subjected to a potential development program but without potential entrepreneurs.

1. Test Subjects

The technique used in selecting the sample was simple random sampling. Nonequivalent Control Group Design is almost the same as the pretest-posttest control group design and is able to use participants randomly. This experiment was conducted intensively to test the validity and reliability of the questionnaire items on 20 people with SPSS.

2. The Value of T-Test

This was used to determine the average significant difference from more than two samples by comparing the value of t-count with t-table. Through the use of this method, Ho is rejected and Ha accepted if the value of t-count> t-table, thereby, showing the influence of the treatment model on the empowerment of the potential participants. However, Ho is accepted and Ha rejected if t-count <t-table showing there is no effect.

The significance value of the column t-test table shows Ho is rejected and Ha accepted if the probability value is <0.05 (p <0.05). Conversely, if the probability value> 0.05 (p> 0.05) then Ho is accepted and Ha is rejected (not significant). The hypothetical test formulation is:

- (1) Determine the hypothesis, compare t-counts with t-tables
- (2) Determine the 5% significance level
- (3) Determine df (degree of freedom) where the numerator = the number of independent variables is reduced by 1 or (2-1)



T-tests were conducted to measure the effectiveness of the working models of the experimental and control groups. Furthermore, time series analysis was conducted to measure changes in the potential behavior of participants due to treatment and to analyze observations, recording, and arranging events from time to time. For example, a series of symptoms were given the symbols Y1 and Y2 and the recording time was given the symbol T, to produce the equation Y = F(T), where Y is a function of T. This is interpreted to be that the magnitude of the symptoms Y depends on the time of occurrence, to determine whether the data graph is linear or not.

Furthermore, the 20 participants were observed 6 times during the experiment and the data obtained were analyzed to determine the trends in students' behavior towards work data models. The linearity of the trend showed the working model and the potential entrepreneurial mental behavior of the participants experienced success. It also depicted the entrepreneurship assistance development model has been successfully developed in building the mental independence of potential participants.

Result and Discussion

1. Result Data

The t-test showed a significant difference between the control and experimental group (Figure 3).

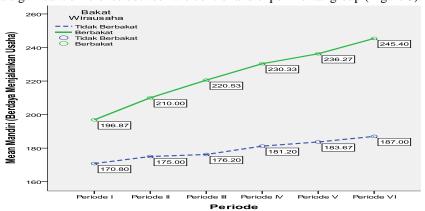


Figure 3: The trend of entrepreneurial development

2. Data Discussion

There were significant behavioral differences between the two groups. The experimental group tenants had a fast-rising trend and a high initial assessment of talent compared to those in the control group. The provision of potential facilitation development models for tenants with talents but without business potential affects the results of the trend of entrepreneurial mental development. A valid, good and fit model has the ability to increase the entrepreneurial mental development trend in the control and experimental groups.

Conclusion

Based on the research, it can be concluded that (a) the applied model is proven to have the ability to improve student entrepreneurial mentality according to potential, (b) the applied model showed significant differences in behavior in the two groups, and (c) the DEFE model (doing, empowering, facilitating and evaluating was found to be very good in creating new entrepreneurs.

Suggestion

The researcher suggests that (a) all entrepreneurial potential of UMS students should be detected early and (b) participants without entrepreneurial talent should choose their passion according to their talents.

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Reference

- [1]. Suranto, 2018. Guidelines for Running a Business: Talent-Based Entrepreneurship Development. Indiva Press. Surakarta
- [2]. Suranto, 2017. Science and Technology for Entrepreneurship. Service Report. Inwabi. UMS. Surakarta Unpublished.
- [3]. Musa Hubeis. 2009. Prospects of Small Businesses in Incubator. . Jakarta. PT. Ghalia Indah.
- [4]. Suranto, 2012. Development of the Entrepreneurial Mental Improvement Model for Student Entrepreneurs. Dissertation. UNY Yogyakarta
- [5]. Bergek, Anna and Norman, Charlotte. 2008. *Incubator best practice: A framework*. Vol. 28. Technovation. pp: 20-28.
- [6]. Bøllingtoft, Anne and Ulhøi, John P. 2005. *The networked business incubator leveraging nentrepreneurial agency*. Vol. 20. Journal of Business Venturing. pp: 265–290.
- [7]. Suranto, et.al: 2018Giving Birth to New Potential Based Entrepreneurs. Jurnal UNIBA. Surakarta.
- [8]. Koswara., Jajah dan Purwadaria, Hadi K. 2000. At a glance: Development of New Entrepreneurial Incubation (inwub) in various Universities by the Higher Education Program. Jurnal Vol. II, No. 2, 2000, Ditbinlitabmas, DIKTI, pp-1 dan 6-7.
- [9]. Nuhayah, Ulin. 2015. Developing Children's Potential: Between Developing Talent and Exploitation. Journal Sawwa. ISSN 2581-1215. Volume 10. No 2. UIN Walisongo. Semarang.
- [10]. Musrofi, M. 2010. Potensipreneur. TCI. Surakarta.
- [11]. Lestari Prawidya dan Sukanti. 2016. Building Student Character Through Intracurricular Activities. Jurnal Penelitian, Vol. 10, No. 1, hal 84-86.
- [12]. Chan, David W. 2000. Education For The Gifted And Talent Development: What Gifted Education Can Offer Education Reform In Hong Kong. Department Of Education Psychology, The Chiese University Of Hong Kong: Education Jurnal Vol, 28, No. 2 Winter 2000
- [13]. Prakoso,Bagas.2005.Effect of Market Orientation, Innovation and Learning Orientation on Company Performance to Achieve Competitive Advantage (Empirical Study on Manufacturing Industry in Semarang). Jurnal Studi Manajemen & Organisasi Vol. 2 No. 1. Januari 2005. Semarang.
- [14]. Autio Klofsten.1998. Technology transfer systems in the United States and Germany: lessons and Prospective. National Academy of Sciences. USA.
- [15]. John. P., Anne Bollintoft, 2005. The networked business incubator—leveraging entrepreneurial agency. Vol 20. P. 267.
- [16]. Doris. 2006. *E-learning in european smes observations, analyses & forecasting*. Physica-Verlag Heidelberg. German.
- [17]. Kalantaridis., Christos., 2004. *Understanding The Entrepreneur: An Institutionalist Perspective*. Ashgate Publishing Company. Burlington USA.
- [18]. Suwarno. 2006. Basic foundations of education. Yogjakarta. CV. Arus Media.
- [19]. Fitriati, R. 2012. *Entrepreneurship education: Toward models in several Indonesia's University*. The th International Conference on Indonesian Studies: 681-698.
- [20]. Jinnett. Jerry., Linda Pinson, 2006. Steps to small business start-up. USA, Chicago: Kaplan Publishing.
- [21]. Faire. 1973. Knowledge-driven entrepreneurship: the key to social and economic transformation. Springer. New York Dordrecht Heidelberg London.
- [22]. Deccache., Alain., Isabelle Aujoulat, William d'Hoore, 2007. Patient empowerment in theory and practice: polysemy or cacophony? Patient education and counseling 66 (2007) 13–20.
- [23]. Kuratko, D.F. 2005. The emergence of entrepreneurship education: Development, tends and challenges. Journal of Entrepreneurship Theory and Practice (ETP): 577-597.
- [24]. Purnamasari, A. M. 2011. Community development for tourism in the tourist village of Toddabojo, South Sulawesi Province. Jurnal Perencanaan Wilayahdan Kota, 22 (1): 49-64

- [25]. Anderson, Linda. (1995). Creative writing: a workbook with readings. Routledge. Abington, Oxfordshire.
- [26]. Istiningsih. 2008. The among-based assistance model in counseling organic rice farming in Sleman Yogyakarta. Disertasi doktor, tidak diterbitkan, Universitas Negeri Yogyakarta.
- [27]. Pittman. Robert H.,. and Rhonda Phillips. 2009. *An introduction to community development*. Rotledge. Madison Ave, New York.
- [28]. McKeown., J. Leslie. 2002. Retaining Top Employees. The McGraw-Hill Companies, Inc. USA.
- [29]. Fayolle., Alain. 2006. *Handbook of research in entrepreneurship education: international perspectives*. Massachusetts Northampton USA. Edward Elgar Publishing Inc.
- [30]. Dunn., Troy. 2007. Young bucks: how to raise a future millionaire. Nelson Inc. USA, Nashvile, Tennessee.
- [31]. Muhammad. Nur. 2011. PAIKEM GEMBROT learning.. Sinergi. Jakarta
- [32]. Sugiyono. 2010. Research & Development. Alphabeta. Bandung.
- [33]. Sukmadinata Nana Syaodih. 2009. Educational research methods. Bandung. PT. Rosda Karya.
- [34]. Borg, W.R. and Gall, M.D. 1983. Educational research: An introduction. London. Longman, Inc.
- [35]. Sukardi. 2003. Metodhs Research. Bandung. PT. Bumi Aksara.