YOUTH EMPOWERMENT THROUGH THE BASIC MECHANICAL ENGINEERING EDUCATION AND TRAINING PROGRAM (DIKLAT) AT THE HADAIDA TECHNICAL CENTER BEKASI JOB TRAINING CENTER

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ABSTRAK

Research Objectives: To find out and obtain an overview of the stages and results of Youth Empowerment through the Basic Mechanical Engineering Education and Training Program by the Hadaida Technical Center for Job Training. Research method: Qualitative. Results: The empowerment stages carried out by the Hadaida Technical Center were considered successful, because they were directly proportional to the results obtained by empowered education and training alumni, not only in terms of mechanical engineering, but also in the religious field. So that the alumni become better than before. The composition of education and training at the Ahadaida Center is 75% practical and 25% theory. The stages used are the awareness stage, the ability transformation stage, and the intellectual ability improvement stage.

Keywords: Empowerment, Youth, BLK, Hadaida

PRELIMINARY

According to 2019 Youth Statistics data, "Currently there are around 64.19 million youths spread across the territory of the Republic of Indonesia, and make up almost a quarter of Indonesia's population (24.01 percent)". From this data, whether you realize it or not, that the figure of 64 million youth is not a small number, and in fact they are capital and have strategic roles and functions in development, including in the process of national and state life.

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1 Badan Pusat Statistik (BPS), Statistik Pemuda Indonesia 2019, pdf, hal. 9
Currently, skills education outside of school is needed. Education and training is one of the non-formal education pathways as stated in (Law No. 20 of 2003) concerning the National Education System in article 26 paragraph (3).

The government in this case makes vocational education one of the main priorities in community empowerment programs, namely by encouraging the Education and Training Program (education and training). There is one educational institution that plays a role in organizing education and training, namely the Job Training Center (BLK). And one of these institutions is the Job Training Center (BLK) Hadaida Technical Center located on Jalan Kampung Bulu, Setia Mekar Village, Tambun Selatan Bekasi, which was established in 2010.

This research is a direct field research that refers to primary and secondary sources, either direct interviews with the leaders of the Hadaida Center or students and alumni. and refer to books, magazines, websites and related files and go directly to the field to take pictures of the existing situation for later analysis.

As for analyzing, the author uses the Spradley model of data analysis. This method contains the whole process consisting of: observation, descriptive, domain analysis, focused observation, taxonomic analysis, selected observations, componential analysis and ends with theme analysis.²

RESULT AND DISCUSSION

Based on the data and research information that the authors have collected, at the Hadaida Technical Center Job Training Center, from November 2019 to October 2020 it was found that Basic Mechanical Engineering Education and Training at the Hadaida Technical Center Job Training Center was established/initiated by the Da' Council. Wah Islamiyah Indonesia, started from the idea of 6 people, namely Mr. Sumardianto, Mr. Liliana, Mr. Yulianto, Mr. Andi, Mr. Yudo and Mr. Sudarno, who have the same educational background, namely mechanical engineering at ATMI (Indonesian Mechanical Engineering Academy) Solo, Central Java, which is based on the explanation of the Qur'an Surah al-Hadid verse 25.

The Hadaida Technical Center Job Training Center was established in 2010 with a waqf donation from the Baituzzakat Kuwait, and started operating in 2012. So far, it has been 9 years since its first operation and has graduated 56 participants from 13 batches, for the 14th and 15th batches. the 2019/2020 school year, temporarily sent home considering the current Covid-19 pandemic. The main purpose of establishing the Hadaida Technical Center is to provide technical education scholarships for orphans and poor people.

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Youth Empowerment Through The Basic | 24
The Hadaida Technical Center's Vocational Training Center makes efforts to empower youth through education and basic mechanical engineering training, using the concept of empowerment stages developed by the Hadaida Technical Center's Vocational Training Center itself with a composition of 75% practice, and 25% theory plus dormitory development activities. In this study, the author only focused on the stages of empowerment carried out by the Hadaida Technical Center and the results of the empowerment carried out.

1. Stages of youth empowerment through basic mechanical engineering education and training programs at the Hadaida.

The steps taken are as follows:

a. The Hadaida Technical Center's Vocational Training Center made preparations, by distributing brochures, pamphlets and banners in an effort to socialize this program. After that the organizers conducted a selection of prospective education and training participants who had registered themselves, and on the first day of the start of education and training, the participants were given guidelines for participating in this education and training program from waking up to sleeping again.

b. The Basic Mechanical Engineering Education and Training Program at the Hadaida Technical Center Work Training Center, lasts for (18 months), with a composition of 75% practice and 25% theory. In semester one (I) and semester two (II), it is used to strengthen the basic theory and practice of competence, and also as a form of evaluating the ability of participants and increasing semesters, daily examinations, mid-semester examinations and end-semester examinations are held. This educational and training activity starts from Monday to Friday, while Saturdays and Sundays are off, except for Saturdays, sometimes there are also overtime hours for participants. The contents of the education and training process are as follows:

a) 2) first Semester, Competency Theory and Practice
b) Theory, (07:30-08:45)
   - Diniyyah
   - Lathe/Bubut
   - Frais/Milling
   - Measuring tools and tolerances

b. Competency Practice (09:00-16:30)
   - Lathe/Bubut 150 Hours
   - Frais/Milling 150 Hours
   - Kerja Bangku 150 Hours
   - Technical Drawing I 150 Hours

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2) So in semester (I) this is the stage of strengthening the basic theory and practice of competence, where participants are taught theory for 1 and a half hours, and are applied to practice for at least the next 5 hours, with competencies that have been prepared, and must be passed by the participants with each competency is 150 hours long, using manual practice equipment. Semester II Pengayaan dan Produksi
   a) Theory (07:00-08:45)
   c. Diniyyah
   d. Bengkel Management
   e. Listrik Industri
   f. Technical Drawing I (Solid edge)
   b) Competency Practice (09:00-16:30)
   g. 300 Hours of enrichment and production
   h. Tools grinding 150 Hours
   i. Technical Drawing II 150 Hours⁴

   As for the second semester, these are the stages of enrichment and production, where after previously in the first semester the basic theory and practice of competency were strengthened, in the second semester this is the stage of developing the theory and practice of competence to the next level, such as diniyyah, workshop management, industrial electricity and technical drawing II (solid edge). From those previously still using the theory and practice of manual competence, in the second semester they have used machine tools, with a duration of 150 hours each.

   So in the second semester there is already an economic value and self-financing, where participants can finance themselves, armed with the basic theoretical material and the practice of competencies that have been obtained in the first semester, if the competence is complete and he masters it, then it is applied to productive training that really works. Right application, join in the production. Where at the Hadaidah Technical Center Work Training Center has its own production unit, so it does work in real terms, working on goods ordered from consumers.⁵

3) Exam.
   This test is carried out both in theory and practice, as a form of evaluation and benchmark of student achievement, in the implementation of this education and training program. This exam is conducted periodically, such as daily tests, midterm exams, and end of semester exams. The daily test is carried out to repeat the material

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⁴ Ibid
⁵ Yudo Winarno, Head of the Hadaidah Technical Center Job Training Center, Interview, Bekasi, 03 Oktober 2020.
that has been submitted to the participants on the same day, so as not to forget. This depends on each education and training instructor.  
Mid-semester exam, this exam is useful for increasing the value of participants so that they can move up to the next semester, this exam is conducted every 3 months. because the standards set are quite high, and participants who do not pass the exam will be returned, in the sense of being dropped out (DO). So, this is intended as a value addition for the participants, so that it is not too difficult when going up to the next semester. And the last is the end of the semester exam, this exam is carried out in order to increase the semester and graduation for the training participants which is carried out every 6 months.  
a) Dormitory Development Shalat berjama’ah  
b) So, the participants of education and training are required to perform the obligatory five daily prayers in congregation in the mosque, with the guidance and supervision of the instructor.  
c) Public Speaking  
This activity is carried out every Monday night, where the form of activity is that the education and training participants are required to deliver lectures according to what they want in front of the other participants, taking turns according to absences, starting with the head of the training and the instructor. Which then when finished, both the head of the training and the instructor will provide input and suggestions.  
d) Witr Prayer  
e) Witr prayer is performed every Thursday night, which is carried out in congregation by taking turns, as is the method used in public speaking.  
f) Tahfidz al-Qur’an  
g) Tahfidz al-Qur’an is a daily routine activity, which is carried out from Monday to Friday at dawn, and participants are required to deposit at least 3 lines of memorization in each meeting, because participants are required to memorize Al-Qur’an at least 1 juz, namely juz 30 as one of the graduation requirements.  
h) Sunday is clean, Sunday is healthy.  
Clean Sundays and Healthy Sundays are held once every 2 weeks, where on the first Sunday, which is clean Sunday, the participants work together to clean up the Hadaida Technical Center and its surroundings. In the second week, which is healthy Sunday, the participants are invited to play futsal or swim, this is intended as a form of refreshing for the participants of this education and training.  
j) Internship, at this stage the participants have passed semester I and semester II. In this internship program, the status of the education and training participants is, half students, half employees, here the participants no longer live in dormitories, but

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6 Abdullah Azzam Education and Training Instructor of Hadaida Technical Center Vocational Training Center, Interview, Bekasi, 08 Oktober 2020.  
7 Ibid  
8 Ibid.
Youth Empowerment Through The Basic | 28

live outside, which is rented out. However, in this case, the cost of renting has been borne by the Hadaida Technical Center. So the aim of this program is for the participants of this education and training to learn to be independent, to enjoy a truly real life, how to live daily, work, rent contracts, and find their own food. In addition to the participants not paying the rent, because it was already covered by the Hadaida Technical Center, the apprentices also received an incentive of Rp. 1,000,000,- per month. When the participants have completed this internship program, the Hadaida Technical Center will offer the participants who have completed the internship program, to work or continue their education, if they choose to work, their status is purely as employees and not participants in education and training anymore.\(^9\)

2. Results of Youth Empowerment through the Basic Mechanical Engineering Education and Training Program by the Hadaida Technical Center Bekasi Job Training Center

a. At least there are some results obtained/achieved by the Participants and Alumni of Basic Mechanical Engineering Education and Training at the Hadaida Technical Center. Although there are shortcomings, which are admitted by the organizers, special wabils for participants from batches 14 and 15. As we all know, the Covid-19 outbreak has disrupted the life system that has been carried out so far, so it also has an impact on the ineffectiveness of teaching and learning activities, at the Hadaida Technical Center Work Training Center, which has been running for 3 months in 2020, thus requiring the participants of batches 14 and 15 to be sent back to their respective homes, with consideration of an undetermined time, following government regulations related to Large-Scale Social Restrictions (PSBB). Based on interview data and questionnaires that the author got, both from organizers, instructors, participants and alumni of education and training programs, at the Hadaida Technical Center Job Training Center, the results achieved include:

b. Participants and alumni of the Basic Mechanical Engineering Education and Training program at the Hadaida Technical Center Job Training Center gained knowledge about mechanical engineering such as operating lathes, milling machines, technical drawings, filing and so on. As stated by one participant “I can operate a lathe, milling, and can read some measuring tools” “Thank God I can turn, even though it’s only basic, and I also understand how the machines on HTC (Hadaida Technical Center) work”\(^10\)

The alumni of the Hadaida Technical Center also stated:

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\(^9\) Yudo Winarno, Head of the Hadaida Technical Center Job Training Center, Interview, Bekasi, 03 Oktober 2020.

“Mechanical engineering, which previously didn't exist in high school, could operate a lathe and milling machine, could draw 2D techniques, both manual drawings, and run AUTO CAD and SOLID WORK applications.”  

“I gained knowledge about machines, such as lathes, milling machines, and surface grinding machines.”

“There’s a lot of knowledge from machinery,... design,... after that other sciences that I experienced”

c. Armed with basic theory, competency practice and internships that have been obtained during education and training at the Hadaida Technical Center, they can be independent, compete in the world of work, and participants can open their own businesses, armed with workshop management materials that have been obtained. Mr. Setiyono as the manager of Hadaida Indonesia as well as the manager of the Hadaida Technical Center said that: “It is evident from several workshops, the acquaintance asked that after graduation, they could work at their place... and the requests were actually a lot.”

And as stated by the Education and Training Alumni at the Hadaida Technical Center Vocational Training Center:

“The first we get, the first is experience, knowledge, character education, then we are required to be independent, and that is very helpful, because at my job, it is related to management, and I was also taught how to manage rich people, and entrepreneurs,...”

"Yes, the work has become more permanent, so... after that we can help in... the da’wah council environment.”

d. Selain In addition to gaining knowledge about basic mechanical engineering and internship experience for 6 months, the participants also received coaching in the dormitory for 2 semesters, with useful activities, from those who previously had not been able to read the Qur'an here, they were guided from learning Iqra’.

As stated by Alumni of the Hadaida Technical Center Job Training Center:

14 Setiyono, Hadaida Technical Center Job Training Center Manager, Interview, Bekasi, 05 Oktober 2020.
“The changes I've experienced a lot are about studying religion, because before at HTC, I hadn't learned much about religion, I could be more independent and of course I could be more or less concerned about that....”

"Alhamdulillah, now his technical knowledge has developed, so has his religion,..."  
"Alhamdulillah, I'm starting to understand a little what is called mechanical engineering of all kinds, and also the dinn too, even though I have been at the BLK for a long time, it hasn't disappeared either,..."  

e. Apart from the things mentioned above, alumni also find it helpful in finding work. As stated by Alumni of the Hadaida Technical Center Job Training Center:

   Yes, it helps, even distributes it, so it's like this, when we graduated, HTC BLK offered which PT PTs were opening vacancies, including Hadaida herself, right, after graduation I thought I wanted to study engineering, well, I'm more interested in Hadaida first, to explore the machine again, well then,...

   Yes, it is very helpful, yes, the certificate is useful for applying everywhere, it is very useful, then for the experience, the machining is very, very helpful for finding a job like that,...

The Hadaida Technical Center for Job Training is a non-formal educational institution initiated by the Indonesian Da'wah Islamiyah Council, based on the idea of six people, namely Mr. Sumardianto, Mr. Liliana, Mr. Aziz, Mr. Andi Pak Yudo and Mr. Sudarno, which aims to empower the ummah, especially orphans and dhu'afâ' by providing free education and training scholarships in basic mechanical engineering, for one and a half years.

Every empowerment program, of course, has a process or stages that must be implemented, there are several concepts that discuss the process or stages in empowerment, one of which is as stated by Ambar Teguh Sulistiyani.

As for the stages of empowerment carried out by the Hadaida Technical Center on-the-job training, the stages of empowerment were developed by themselves, although the concept is not much different from that expressed by Teguh Ambar Sulistiyani,

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18 Ii Supriadi, Alumni of Education and Training Center of Hadaida Technical Center Batch-12, Kuesioner Interview, 20 September 2020.
20 Mursyid Ahmad Abdul Baqy, Alumni of Education and Training Center of Hadaida Technical Center Batch -8, Interview, Bekasi, 19 Oktober 2020.
which includes; 1. Awareness stage, 2. Ability transformation stage, 3. Intellectual ability improvement stage, although not exactly the same, but substantially the same.

1. Awareness Stage

At this stage the Hadaida Technical Center Job Training Center has not been maximal in raising awareness to the surrounding community, namely through media such as brochures, pamphlets, banners, and there are also participants who are delegates from the Da'i or Ustadz who are in the interior, because indeed the Participants came from various parts of Indonesia. After that, the organizers will select the prospective participants who have registered themselves with several criteria and requirements that must be met. On the first day of the education and training activities, the participants were read about the guidelines for education and training at the Hadaida Technical Center Work Training Center, from waking up to sleeping again.

2. Ability Transformation Stage

At this stage, the Hadaida Technical Center Job Training Center in implementing basic mechanical engineering education and training programs has created a series of activities that all participants must pass. Where for two semesters, the participants get basic theoretical material and competency practice, starting from Monday to Friday.

For theoretical activities in the first semester, the participants received basic theoretical materials such as diniyah, lathe, milling, measuring and tolerance tools, technical drawings I. Meanwhile, in the second semester, participants received theoretical materials such as diniyah II, workshop management, industrial electricity, technical drawing II (solid edge), as a form of development material from the previous semester, starting from 07:00 to 08:45 WIB.

Then for the practice of competence in the first semester, the participants received materials such as lathe/lathe, milling/milling, bench work, technical drawings I, where the equipment used in competency practice in this semester was still using manual equipment, and the duration/practice time of the first semester, each equipment used is 150 hours in one semester.

Meanwhile, in the second semester, the participants received competency practice materials such as enrichment and production, grinding tools, and technical drawings II, where the equipment used in competency practice in this semester was already using automatic equipment. The duration/time for enrichment and production, which is for 300 hours in one semester, which is actually combined with the existing production units at the Hadaida Technical Center for Job Training. Meanwhile, the practice of grinding tools and technical drawing II each lasts 150 hours in one semester, starting from 09:00 to 16:30.

After the participants have received the basic theoretical material and competency practice, to measure the ability of the participants, the Hadaida Technical Center Job Training Center conducts competency exams, both daily,
which are useful as repetition of material, mid-semester exams which are useful as an added value for the participants, and end of semester exams, for semester increase and final semester graduation.

The education system at the Hadaida Technical Center is in the form of boarding (dormitory). So the participants of this education and training are in a dormitory for two semesters, with supervision and assistance by a diniyyah instructor, with activities that include, obligatory prayers in congregation at the mosque, then muhâdhara/lectures which are carried out in turns in front of the participants and administrators. On every Thursday night the participants perform the witr prayer in congregation which is carried out in turns according to absences. Then for daily routine activities, namely tahfidz al-Qur'an, which is carried out every Monday to Friday at dawn, with a target of memorizing a minimum of three lines at each meeting. Then for the last activity, namely Clean Sunday and Healthy Sunday, where in the first week, namely Clean Sunday, the participants cleaned the surrounding environment together. In the second week, namely healthy week, the participants did sports together, namely swimming and futsal.

3. Intellectual Ability Improvement Stage.

At this stage, how to increase intellectual abilities, skills to skills so that innovative initiatives and abilities are formed to lead to independence. At this stage, the Hadaida Technical Center Vocational Training Center makes a program, namely an internship program for participants who have completed two semesters of education and training in a dormitory. At this stage the participants no longer live in the dormitory but live outside, with rented facilities guaranteed by the Hadaida Technical Center for Job Training, and the participants are also given an incentive every month during the internship of Rp. 1,000,000, - because at this stage they are positioned as half participants and half employees. The aim of this program is for the participants of this education and training to learn to be independent, to live a truly real life in the field. After the participants completed the internship program, the Hadaida Technical Center gave the participants a choice, to continue their education or work, if the participants chose to work, then their status became pure employees, and had been separated from the education and training participants.

Based on the data analysis that the author has done previously, it can be said that, youth empowerment through the Basic Mechanical Engineering Education and Training program at the Hadaida Technical Center Job Training Center, produces empowered alumni.

Although the indicators used are not exactly the same as those expressed by the experts, they are substantially the same, it can be seen from the social and economic conditions of the Alumni, before and after participating in the Education and Training program at the Hadaida Technical Center. If you look at the goal of empowerment itself, where the goal to be achieved from empowerment is to shape
individuals or communities to become independent, this independence includes independence in thinking, acting and controlling what they do.

So it can be seen from the facts that the author got in the field. Where the alumni previously did not understand mechanical engineering, they became aware of and able to operate the machines used in practice. From previously not having special skills, they have special skills in the field of machinery.

From the previous lack of religious understanding after attending education and training, his religious understanding developed. From the previously unemployed without a job, now they can work with a decent income, and some of them are even able to open their own businesses. From those who previously did not have memorized the Qur'an, now they have memorized the Qur'an at least 1 juz. Thus the alumni of education and training can be said to be empowered because the alumni can be better than before.

CONCLUSION

Based on the formulation of the problem and the results of the research that the author did about the stages and results of the Youth Empowerment program through Basic Mechanical Engineering Education and Training at the Hadaida Technical Center Bekasi Job Training Center, it can be concluded that:

1. In carrying out its empowerment program, the Hadaida Technical Center Job Training Center uses 3 stages of empowerment, which are in accordance with the concept of empowerment stages expressed by Ambar Teguh Sulistiyani, which include:
   a. The awareness stage, although its implementation has not been maximized, namely by distributing brochures, pamphlets and installing banners, then the organizers conduct a selection of prospective education and training participants.
   b. The ability transformation stage, which is carried out through; 1) First semester, competency theory and practice, 2) Second semester, enrichment and production, 3) Exam, as a form of evaluation which includes: Daily test, mid-semester examination, semester promotion and graduation examination, 4) Hostel development which includes; congregational prayer, muhādharah, witr prayer, tahfidz al-Qur'an, clean and healthy Sunday.
   c. In the intellectual ability improvement stage, at this stage the Hadaida Technical Center Vocational Training Center makes a program, namely an internship program for participants who have completed two semesters of education and training in a dormitory. The stages carried out in this empowerment can be said to be successful, this can be seen from the participants and alumni who have increased their abilities in the fields of mechanical engineering and religion.

2. In connection with the results of the Youth Empowerment program through Education and Training at the Hadaida Technical Center for Job Training. The alumni are very helpful and feel the benefits. This can be seen from the alumni who can compete in the world of work with the abilities, knowledge and certificates provided.
as well as six months of internship experience. They can get a decent job and salary, even some alumni can open their own business. The changes experienced were not only in the field of mechanical engineering but also in the religious field.

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