

Increasing Generation Z Affinity and Creativity for Digital Startup Innovations at SMA St. Thomas 1 Medan

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Abstract

Various knowledge both in the academic and non-academic fields that have been taught in schools is often not related to entrepreneurship. Today, entrepreneurial activity is often associated with digital technologies. Armed with the knowledge of computer science that has been learned during the school period, then combined with knowledge about digital startup entrepreneurial innovations, it is hoped that it can increase students' knowledge and interest in digital startups. The plan of service activities that will be carried out is that the service team will prepare learning materials related to finding and developing startup ideas and utilizing lean canvas to describe business model ideas. The service activity will be carried out in the computer lab of SMA Santo Thomas 1 Medan for two days where each meeting is carried out for three hours.

Keywords: Digital Innovation, Startup, Lean Canvas, business model ideas, entrepreneurship

INTRODUCTION

SMA Santo Thomas 1 Medan is located at Jl. S. Parman No.109, Petisah Tengah, Kec. Medan Petisah, Medan City, North Sumatra 20111. The school was founded by the Apostolic Vicariate of Medan (Archdiocese of Medan) on October 16, 1955. Since November 27, 1982 the school has been under the auspices of the Don Bosco Catholic College Foundation of the Archdiocese of Medan. This school is one of the most favorite schools in North Sumatra. The school also often achieves many achievements in academic and non-academic fields. Every year this school also contributes many students to the best universities at home and abroad. The school also provides various facilities, where each classroom has air conditioning and LCD projectors. In addition, there are Physics Laboratories, Biological Laboratories, Chemistry Laboratories, Computer Laboratories, Libraries, UKS Rooms, Meeting Rooms, Lockers, Halls, Cooperatives, Toilets, Volleyball Courts, Basketball Courts, Parking Courts, and every corner is equipped with CCTV.

Even though it is equipped with complete facilities and undoubted achievements, students of SMA Santo Thomas 1 Medan should also be equipped with insight and knowledge about digital innovation, namely startups. This is important considering that high school students are potential owners and potential actors who will help the government to achieve the sustainable development goals (SDGs) with the 2030 development agenda. They need to be encouraged to continue to innovate and utilize technology to help support the achievement of various SDGs/SDGs 2030 targets and policies. They need to be trained to start learning to spawn innovative ideas and describe them into a simple and easy-to-understand model, and then they can start in the form of a startup.

A startup utilizes innovative technology and concepts in running and developing its business. The main key to startup companies is innovation. Innovation refers to the process carried out by individuals or companies in forming creative and innovative new product concepts, ways, and/or ideas, and these processes have a great impact on the progress of the company so that the company is able to compete with its competitors. As the first step in starting a digital startup innovation, knowledge of the concept of finding and developing innovative ideas is needed. The idea must then be explainable and voiced to investors. In this devotion activity, the students will be introduced to the principles of Lean Startup.

A lean startup is an approach to new product development that aims to create and manage startups and produce products that are desired to be delivered to customers more quickly. The lean startup approach focuses on validated learning, scientific experiments, and product releases that are carried out iteratively to shorten the product development cycle, measure progress and get feedback from customers. Through lean startup, a startup is directed to develop products that not only answer problems but strive for how to make the products produced to fit the problems and conditions faced by customers (Cosenz, 2017; Ries, 2014). Lean startup itself is proposed to have 3 stages in its approach, namely problem-solution fit, product-market fit, and scale up. Through these three stages, startups are required to validate and verify the hypothesis of their proposal to customers. After that, startups are asked to create a product demo and then re-engineer it together with customers. Once the product demo has been verified together with the customer and of course getting feedback from them, then startups can start making more tangible specifications to start producing minimum viable products (MVPs). The finished MVP will then be verified together with the customer so that later the finished/final product will get an assessment directly from the customer. This repetitive step, if implemented, is expected to help startups to develop products that are really needed by their customers (Moshood et al., 2022; Naratama & Windasari, 2019). To make it easier for participants to understand the principles of this lean startup, the participants will be introduced to the problem-solution model of the fit canvas, product-market fit canvas, lean canvas, and value proposition canvas.

As previously mentioned, lean startups have 3 stages in their approach, namely problem-solution fit, product-market fit, and scale up (Naratama & Windasari, 2019). The purpose of the problem-solution fit phase is to translate the problem into a solution. In problem-solution fit, the core goal is to find solutions to real problems faced by potential customers who are willing to pay to solve those problems. Once a sellable solution is available and there are potential customers who intend to use it, even willing to pay and disseminate information related to the solution, then at that point, startups manage to find a product-market fit (Startup Studio Indonesia, 2021).

As mentioned earlier that in this training. Will utilize 4 types of tools (canvas) namely: problem-solution fit canvas, product-market fit canvas, lean canvas, and value proposition canvas. Here is the explanation:

Problem-solution fit canvas is a tool for startups to translate problems into solutions with the main target to increase the likelihood of the solution being fully adopted. In the problem-solution fit canvas, there are 4 types of fit, namely: customer state fit, problem-behavior fit, communication-channel fit, and finally problem-solution fit (Nepriakhina, 2016).

Product-market fit canvas is a tool that can be used to evaluate the actual needs of the target customer. With this canvas, startups are helped to analyze several important elements related to the relationship between the product and the customer. In product-market fit consists of 2 parts, namely the customer part and the product section. In the customer section, there are several fields, namely: characteristics and job to be done, problems & needs, channels, and user experience. In the product section, there are fields, namely: alternatives, key features, value for the channel, and key matrixes (Anjali J, 2022).

The value proposition canvas is a business modeling tool that helps startups ensure that a company's products or services are positioned and tailored to the needs and values expected by customers. In the value proposition canvas, there are 3 parts, namely product and service, pain reliever, and gain creator (Pereira, 2021).

Lean Canvas is the result of the adoption of a business canvas model. The business model canvas is a model that can be used together to describe, visualize, assess, and make changes to the business model through nine segments. Lean canvas can also be used as a companion in the business planning process because it can document business models, measure business progress, and communicate to stakeholders who are interested internally and externally. The stages of creating a business model with lean canvas are carried out in stages based on the factor analysis of the findings that have been obtained in the customer creation section. The

manufacture of lean canvas is carried out in stages or according to its derivatives. At the first level, problems, unique value proportions, and channels are explained. Furthermore, the second level is explained related to solutions, customer segments, and key metrics. Then the last level is to determine the cost structure and revenue streams (Sama & Chandra, 2021; Tristiyanto et al., 2020).

However, before starting to teach more about lean canvas, participants will be equipped with problem-solution fit canvas, product-market fit canvas and value proposition canvas. This is made with the aim that when the participants want to fill in the lean canvas, it will be easier because it is supported by data from the previous 3 canvases.

In describing the business model, it is necessary to describe the marketing and promotional media of products and services that are the main products of startup companies. This marketing strategy by utilizing information technology is called inbound marketing. Inbound marketing can have a greater positive impact when utilized together with outbound marketing (Sylvia et al., 2021). This is one of the efforts to encourage better and more creative digital innovation.

The solution that will be offered is to provide mentoring and training in the form of a series of activities that are expected to help improve the skills and knowledge of students related to digital innovation, especially in finding ideas and modeling them into a lean canvas. The service team will begin preparing a learning module on the process of finding ideas and modeling business plans by utilizing lean canvas. Students will also be introduced to the MVP (Minimum Viable Product) concept. The above activities will be carried out with the duration of implementation within 2 (two) face-to-face meetings and each meeting with a duration of 3 (three) hours. This training will be attended by students of SMA Santo Thomas 1 Medan.

The students of St. Thomas 1 High School have been equipped with a variety of academic knowledge. It would be even better if they were also equipped with knowledge about innovation and digital startup entrepreneurship and then invited to start spawning innovative ideas that support Indonesia's Sustainable Development Goals (SDGs) roadmap for 2030. By combining the academic knowledge that has been received during school and the debriefing of the service team, it is hoped that it will be able to increase the interest and potential of students to start developing their own innovative ideas and become aware and participate in the 2030 Indonesian SDGs. Thus, students are expected to become smart and leading people and future potentials of Indonesia who can compete in the global business era in the future.

METHOD

The stages that will be carried out in this service activity are as display at figure 1 and can be further explained as below:

- **Collecting materials**
The team collected service materials related to digital innovation, information about the SDGs / SDGs 2030 for the theme of triggering creative ideas, lean canvas, and introduction to design thinking methods and MVP (Minimum Viable Product) concepts as material for compiling training modules.
- **Create training modules**
The material that has been collected is then arranged as attractive as possible for high school students. The material will be divided into materials for finding and developing ideas, SDGs/SDGs 2030, and lean canvas modeling.
- **Implementation of service to the school**
It is planned that the implementation of this service activity will be carried out for a period of 2 (two) days. The team will directly visit the school to carry out service activities.
- **Compile activity reports**
After completing the service activities, it is continued with the preparation of the final report on community service activities. The final report is evidence of community service activities that have been carried out by the service team and as evidence of team responsibility.
- **Create a publication article**

The next step is that the team can immediately continue to make scientific articles for publication.

RESULTS AND DISCUSSION

The first step taken by the service team is to collect materials related to lean startups, innovations related to the topic of SDGs / SDGs 2030, MVP (Minimum Viable Product), problem-solution fit canvas, product-market fit canvas, lean canvas, value proposition canvas, along with canvas templates. These materials are then compiled into training modules that will be used during the implementation of service activities and will be distributed to students through a link. The service team also took the initiative to provide a canvas template in the A3 paper which was then distributed to students so that it was expected to facilitate the learning process of the students. There are four types of canvas printed on A3 paper, namely problem-solution fit canvas, product-market fit canvas, lean canvas, and value proposition canvas.

The implementation of the service for 2 days went smoothly and successfully. The activity was carried out in the classroom of SMA Santo Thomas 1 Medan. The delivery of the material is divided into 5 main materials, namely:

- Introduction to SDGs 2030 and Lean Startup topics
This material provides an overview of the topic of SDGs Indonesia 2030 and Lean Startup. The 2030 SDGs are a global plan of world leaders including Indonesia to reduce poverty, inequality, and increase environmental awareness which this plan is targeted to be achieved by 2030. Meanwhile, Lean Startup is one of the methods used to develop startups according to customer needs and in a short time with an emphasis on efficiency.
- Use of Problem-Solution Fit Canvas
This material aims to direct students in determining the problems faced by their potential customers and then thinking of solutions to these problems.
- Use of Product-Market Fit Canvas
The solution to the problem that has been determined in the previous material is then sharpened and adjusted to the needs of the current market share to find out the suitability of the solution offered to the needs on the customer side.
- Use of Lean Canvas
This material is the main core of lean startup, where the content of the components on the canvas can be completed by referring to the two previous canvases that have been discussed, then several other components that need to be equipped with more in-depth analysis.
- Use of Value Proposition Canvas
This material is intended to make it easier for students to complete the Unique Value Proposition component on Lean Canvas.

The implementation of the service for 2 days has more or less the same details where the difference is that on the first day the service team provides training for class XI-IPS-1 students. While on the second day, training was given to students of class XI-IPS-2.

The service began with the introduction of the service team and then continued with the distribution of a pretest questionnaire to find out the level of understanding of students on the topic to be presented by the service team. The results of the pretest questionnaire data processing are as follows.

The graph below (figure 2) shows the perception of trainees before participating in training activities. From the graph, it can be seen that a large part of the participants get an initial idea that the training to be followed is about learning about how to develop a digital startup. This can be seen of 59 participants from a total of 64 participants or 92.18% gave the correct answer about what they wanted to learn based on their perceptions. Participants were also asked about whether they had previously known about lean startups and if true, where did they know about lean startups. A total of 34 people have known about lean startups from social media, 1 person knows from friends and 4 people know from websites. The remaining 25 people have never known about lean startups.

Then when the participants were asked further about whether the participants had attended similar training, as many as 58 participants answered that they had never attended similar training. There were only 6 participants who had participated in similar training activities. This if associated with the previous question means that although they have known about lean startups, the participants have never attended training on lean startups or the like.

The material discussed for the first time was on the topic of SDGs Indonesia 2030. Students are directed to find topics or ideas to develop startups by referring to the topic of SDGs Indonesia 2030. There are 17 main topics in Indonesia's SDGs 2030 aimed at ending poverty, inequality, and increasing concern for health and the environment. Previously, students were asked to form groups of 3-4 members. Then each group is given time to determine their innovation ideas based on their creations or can refer to the topic of SDGs 2030. The service was then continued with an explanation of lean startup and creating canvases using the template provided by the team.

This training is also in line with the extracurricular activities attended by social studies class students, namely entrepreneurial activities held by the government. Therefore, through this training, it is hoped that students can develop their entrepreneurial ideas by utilizing the available tools and also as a complement to extracurricular activities that students participate in. Overall, the results of the achievement of this service activity can help students in determining startup development methods equipped with tools that can help in their development.

In closing the implementation of service activities, the team then distributed a Post Test questionnaire to find out the level of understanding of students after attending the training provided by the team and the interest or interest of each student in future training topics. First, participants were asked about their responses regarding the training after participating in the activity. As many as 91% of the participants or as many as 58 people stated that they had a good impression of the training activities. Only 9% or 6 people of the total number of participants felt that the training they attended was normal.

After that, participants were also asked about whether during the training, the media provided by the service team could be understood. Throughout the implementation of the training, the participants are made into groups. Each group was then distributed canvas media in the form of A3-sized paper to support training activities. Each group gets 1 set of canvases containing 4 canvases, namely: problem-solution fit canvas, product-market fit canvas, lean canvas, and value proposition canvas. The results after being asked by the participants, as many as 47 participants felt that it was easy to understand the 1 set of canvases used throughout the training. There were 17 people out of a total of 64 participants who felt that the canvas learned was not easy to understand.

The participants were then also asked if they understood the purpose of the training, after they went through the training activities. A total of 64 participants, 62 participants replied that they understood the purpose of the training activities. There were only 2 participants who did not really understand the purpose of the training activities. This may be because these 2 participants did not really understand the ways, objectives, and benefits of using the canvas taught during this training.

The participants were then asked again, whether they became more familiar with how to develop startups. A total of 60 participants replied that they will try to develop a startup if they become more familiar with the process and stages that need to be passed. However, there are still 4 people who still don't understand. This may be because they still don't understand the relationship between canvas depictions and the startup development process which refers to lean startup principles.

Next, the service team compiles the final report of the activity and creates a published article. The final report is proof of community service activities that have been carried out by the service team and proof of the responsibility of the implementation team. After the final report is completed, it is continued to make scientific articles for publication purposes.

CONCLUSIONS AND RECOMMENDATIONS

Learning about digital startups is an important thing to teach to the younger generation. Today's young generation has many bright ideas that when polished and further honed can produce young business people. This can certainly open up wider employment opportunities and eventually be able to improve people's living standards. Therefore, this service activity is aimed at starting to increase the interest and talents of students to get to know more about startups or even start thinking about startup development ideas.

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APPENDIX

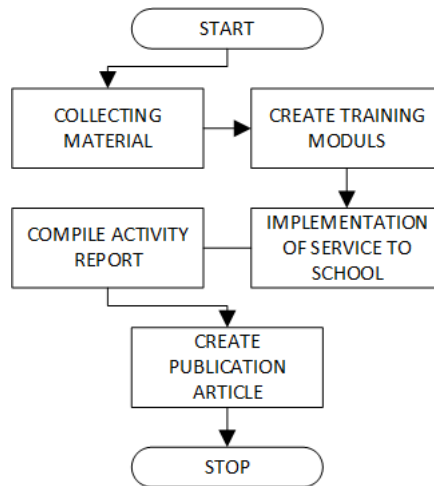


Figure 1. Stages in community service Activity

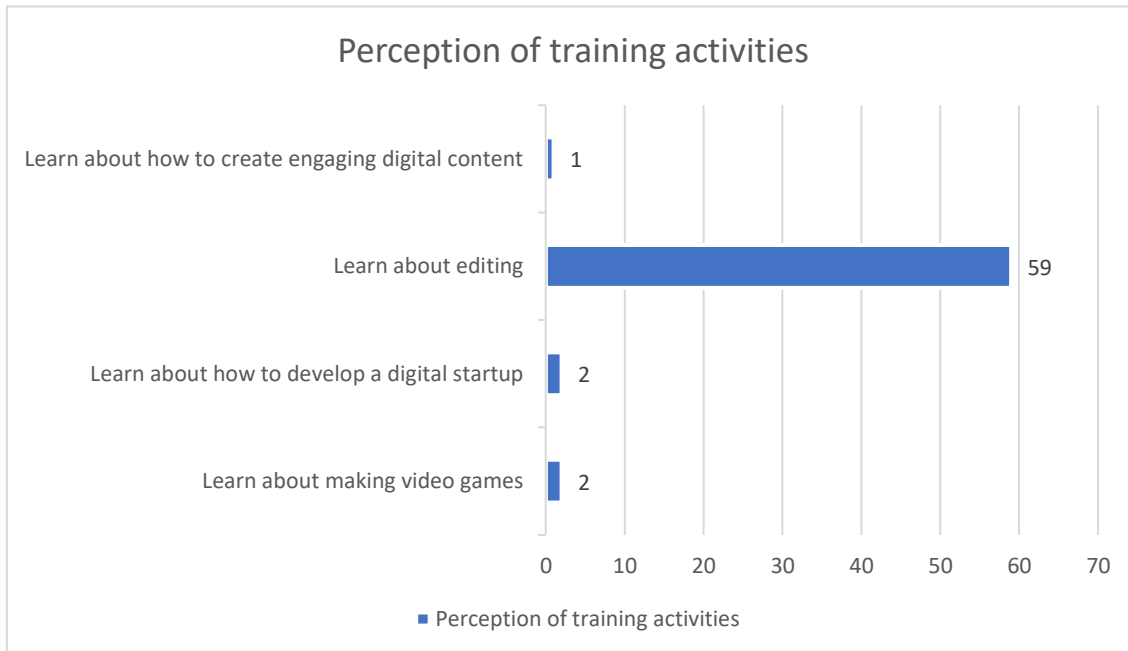


Figure 2. Perceptions of training activities graph

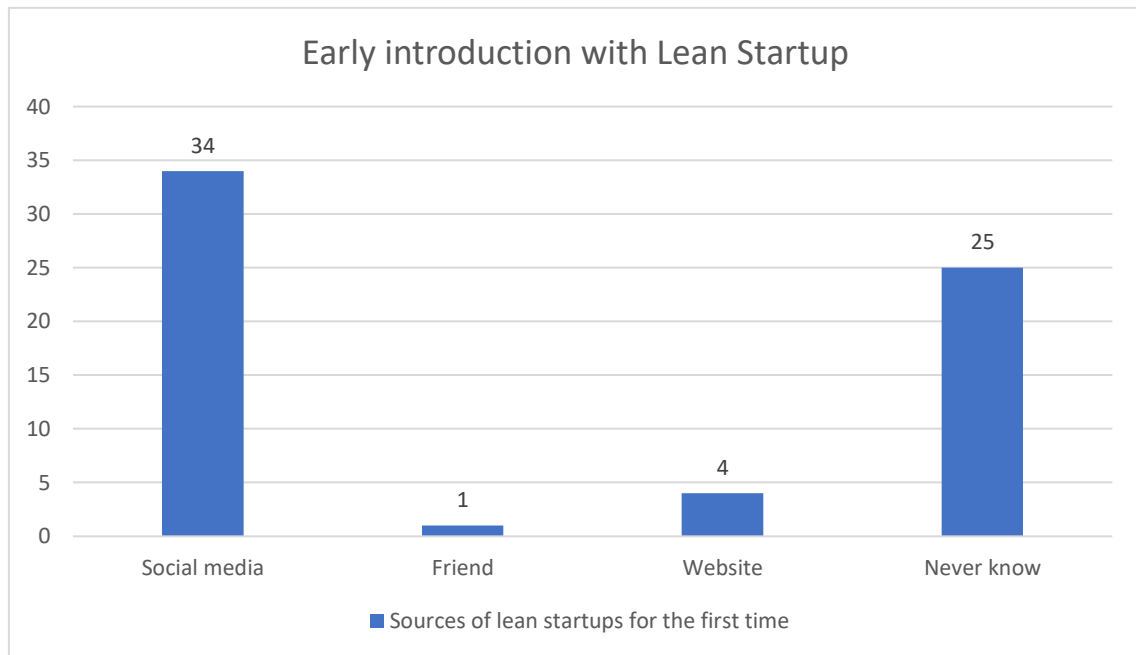


Figure 3. Early Introduction with lean startup graph

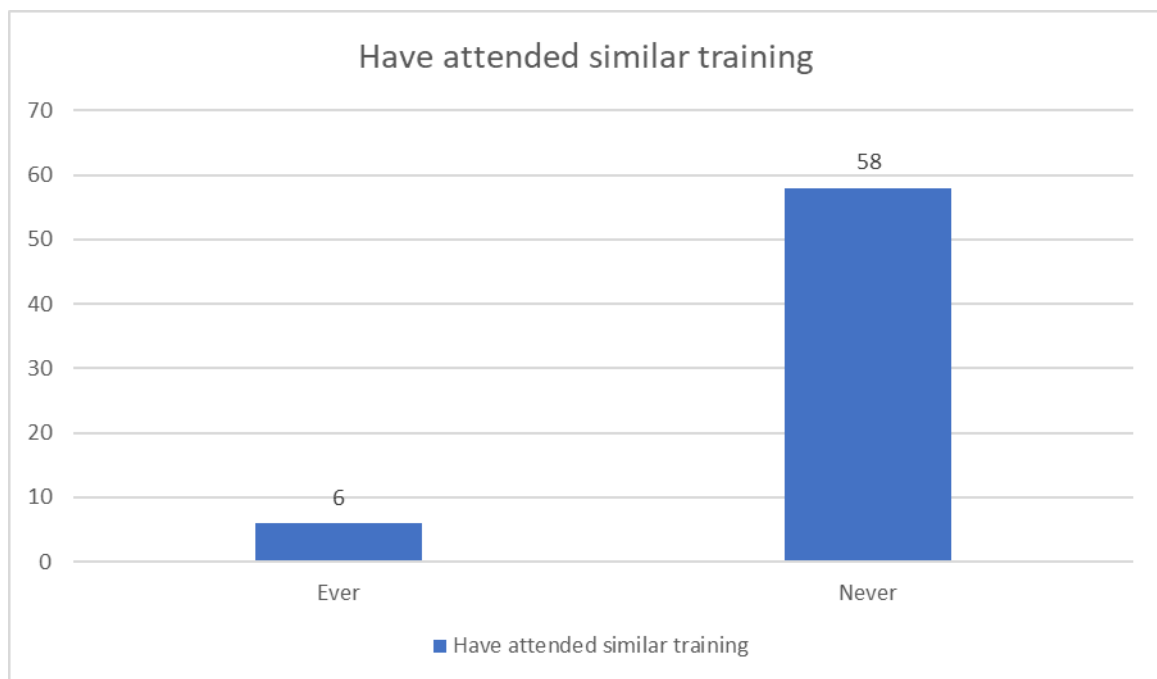


Figure 4. Has Attended similar training graph

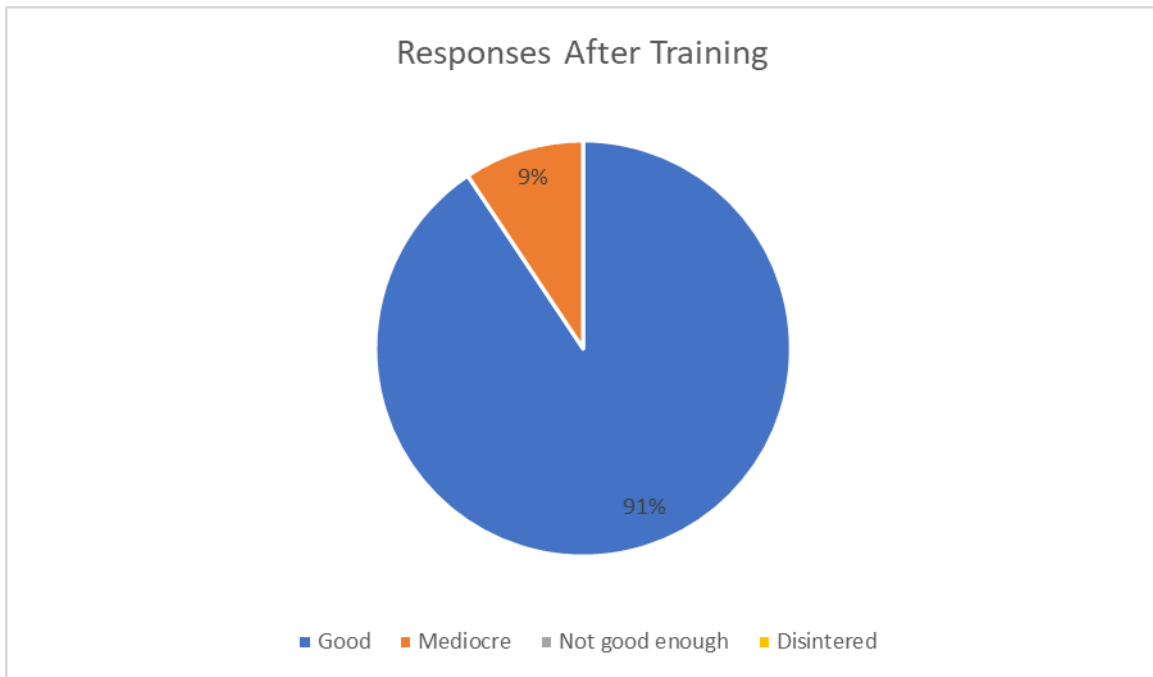


Figure 5. Response after training graph

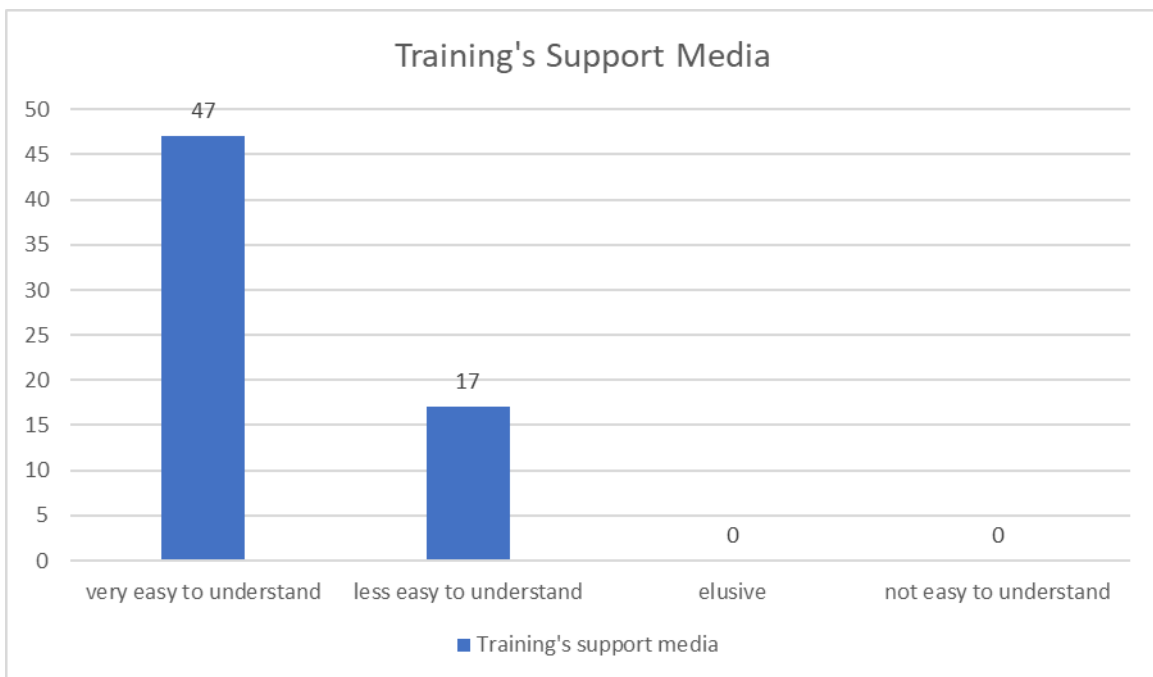


Figure 6. Training's support media graph

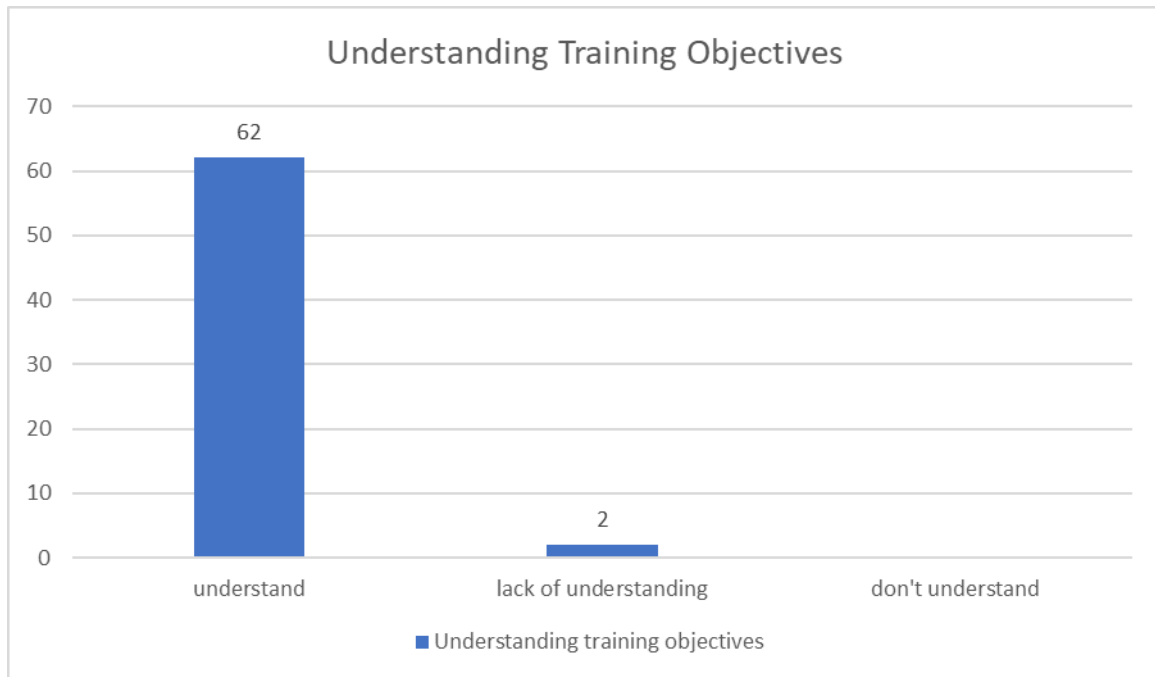


Figure 7. Training objectives comprehension graph



Figure 8. The situation during service activities