

P3P(Training, Use, and Implementation) of the GO-Turtles Application as a Provider of Turtle Conservation and Ecotourism Services Supporting Conservation Groups

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ABSTRACT

There is a discrepancy in reports between each conservation officer and this causes difficulties in carrying out supervision, resulting in a decrease in the number of turtles and slow ticket service processes. This community service activity aims to help community groups consisting of conservation groups and tourism groups in data management. For conservation groups, it is to facilitate the management of conservation data into computerization. Meanwhile, for tour groups, it is easier to process tickets with scan and print technology. Therefore, the Universitas Komputer Indonesia team will carry out training and mentoring activities for the GO-Turtles desktop and mobile-based application. This application consists of a conservation system and a ticketing system. The method used in the creation and implementation of the application uses a technological approach pattern through discussion/dialogue on the problems that occur using a questionnaire with several questions. This application will also be connected to Scanner technology and automatic Printing technology which consists of registration, mailing, conservation, and ticketing functions. The results of the conservation group's community service activities can be filled in online every day and can be saved in the application, while tourism groups, can use scanner technology and printer technology which produce tickets online and offline, and the result of this activity is the data processing process that has been successfully carried out by conservation and tourism officers

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INTRODUCTION

Turtles are classified as ancient animals that have LIVED since the time of the Dinosaurs, of the 7 (seven) types of turtles in the world, 6 (six) types of turtles are in Indonesian waters. These turtles include the Green turtle (*Chelonia mydas*), Olive ridley turtle (*Lepidochelys olivacea*), Loggerhead turtle (*Caretta caretta*), Hawksbill turtle (*Eretmochelys imbricata*), Leatherback turtle (*Dermochelys coriacea*) and Flatback turtle (*Natator depressus*) (Putri Pane et al., 2020). According to CITES (Convention International Trade in Endangered Species), Turtles are included in Appendix I category, meaning that trade in endangered species is no longer permitted. Based on this, all types of turtles in Indonesia are protected based on Government Regulation No. 7 of 1999 concerning the Preservation of Plant and Animal Species and Government Regulation No. 8 of 1999 concerning the Utilization of Wild Plant and Animal Species, meaning that all trade in living or dead conditions is prohibited (Firliansyah et al., 2017). This is because almost all turtle species in Indonesia have experienced a population decline, and they are categorized as endangered. Therefore, conservation efforts are needed. Conservation itself means an effort to save and protect turtles from the threat of extinction by increasing coordination with stakeholders, especially local communities. (Harahap et al., 2015). The existence of conservation according to (Harahap et al., 2015; Rosalina & Prihajatno, 2022) can increase awareness of preserving habitats from the threat of extinction.

One of the conservation centers in Indonesia is the Pangumbahan area. In the period 2017 until now. Pangumbahan Turtle Conservation is managed Government of West Java Province, Southern Regional Maritime Affairs and Fisheries Service Branch. CDKWS has 3 units, namely CIRANJANG SATPEL, PAMARICAN SATPEL, PANGUMBAHAN SATPEL. In implementing turtle conservation in Pangumbahan, the management has empowered communities around the area and since 2012 and partnered with Kelompok Konservasi Penyu Sukabumi (KKPS). These conservation activities consist of protecting turtles when they land and lay their eggs, relocating eggs to the hatching room, incubation process for turtle eggs, quarantine of hatchlings, and release of hatchlings. Meanwhile, to increase the concern and awareness of local communities and the general public, Pangumbahan Conservation has also adopted ecotourism managed by the Ecopatih community group. Ekowisata pangumbahan tersebut terdiri dari wisata pelepasan tukik, turtle watching/ (melihat penyu bertelur) dan kolam sentuh. During conservation and ecotourism activities, the Indonesian Computer University service team conducted direct observations and interviews and found problems that occurred, including, the conservation section still used and relied on recording techniques through documents. This technique creates differences in recording the number of eggs between landing sections and other sections, giving rise to perceptions or allegations of mutual blame. Another problem is that there is data that is not recorded in several conservation processes such as seeding and hatching. So the important role of technology is in facilitating computerized data processing to facilitate data storage and monitoring.

According to research by (Andri Sahata Sitanggang et al., 2020), The important role of technology in the field of conservation is to ensure the suitability of data generated from recording into the application directly so that each supervisor can carry out direct monitoring of the process of activities carried out. With monitoring through technology, it can also improve the goals of conservation.

Meanwhile, the ecotourism problem that occurs in Pangumbahan conservation is long queues during the holiday season, resulting in unrecorded data on tickets sold. This is also due to technological limitations which still rely on physical ticket documents only. This method also means that we cannot provide accurate information on the number of local and foreign visitors, relying only on the memory of officers when making monthly or annual reports. The problems experienced by the Situ Sukarame Parakansala Sukabumi tourist attraction in research (Saepudin et al., 2022) revealed that the current system results in very long queues and makes ticket counter officers overwhelmed in serving tickets which still use book recording, and also makes it difficult for counter staff to count the number of incoming tours per group. So the role of the ticketing system can speed up the ticket ordering process and also improve services to tourists, as stated

by (Aprilyanti et al., 2022) the use of e-ticketing saves visitors time, avoids long queues, and provides a more comfortable visiting experience.

So it can be concluded that the problems that occur are problems in two community groups, namely the conservation group (KKPS) and the tourism group (Ekopatih). The following is a summary of the problem through documentary evidence which can be shown in figure 1.

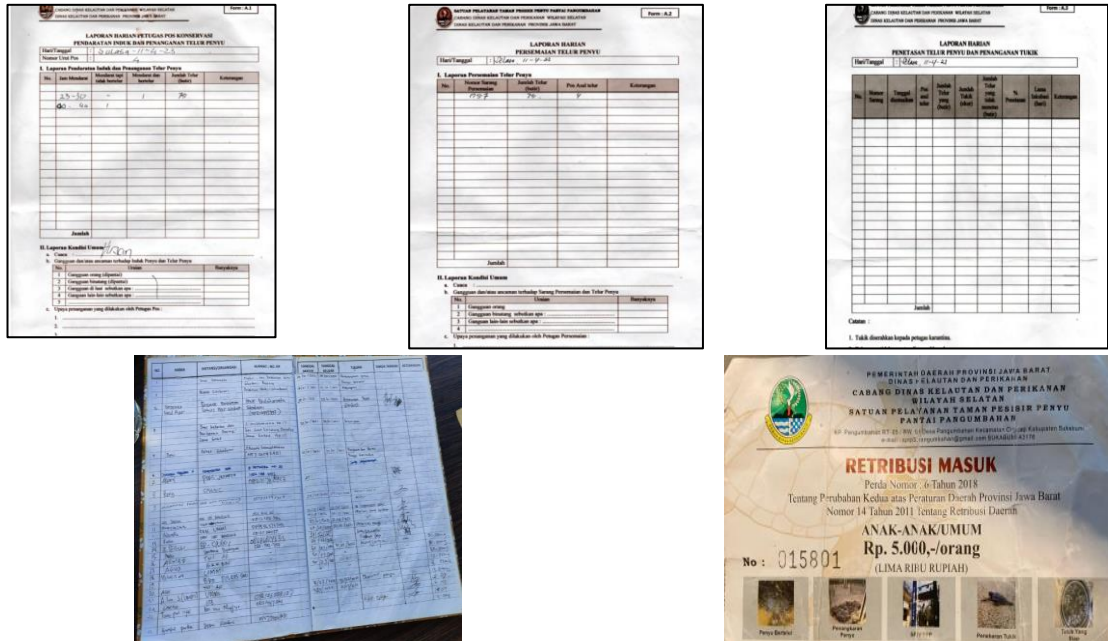


FIGURE 1. Conservation and Tourism Group Issues

Figure 1 shows the stages of the conservation process carried out. It can be seen that there are several blank documents representing these stages. These blanks create dissimilarity in information between sections, thus having an impact on the conservation reports made every month. Meanwhile, for the tourism section, Figure 2 shows the technique for recording each visitor in a document based on the tickets sold, some are recorded and some are not recorded, resulting in a report with minimal information. So these two parts require an information system in the form of applications in the conservation and tourism sections. The technology that has been created is a conservation information system that consists of data management functions for the post, nursery, hatching, quarantine, and hatchling release. This application will also implement a monitoring system which must be validated by each section under the coordinator. So you can see the performance of each part. Meanwhile, for the tourist section, integrated scanner technology will be implemented with online booking functions, while printing technology is a technology that produces receipts and tickets automatically by storing visitor data/information.

METHOD

The devotion method is divided into 2 parts, namely:

1. Non-Technology Transfer Methods

This method has been implemented by conservation officers and tourism officers, so the community service team compiles the problems faced in the field, including complaints and needs that must be met to support the activities they carry out (Sitanggung et al., 2022). The mapping for compiling problems which will later be adjusted to the application of technology is as follows.



FIGURE 2. Non-Technology Transfer Methods

2. Technology Transfer Methods

After submitting a solution to the officer and reaching an agreement on the solution that was built, the community service team will revise the technology that has been built. The next steps that will be carried out by the community service team are:

a. Application testing stages

After making revisions to the application that has been built, the service team conducts internal application testing. The application will be tested between the service team and other supporting teams from students. So that it produces a test report, which will later become a reference for the IT team to revise the application(Pangaribuan et al., 2019; Sitanggang et al., 2024).

b. Stages of Socialization

The socialization stage will consist of delivering materials on application support technology. The materials distributed are materials to build and encourage officers to open their insights on technology, and the benefits of technology. The socialization that will be provided includes materials on 1) the Benefits of technology, 2) the Positive impacts of technology, and 3) the Utilization of technology(Sartika et al., 2024).

c. Application training and mentoring stages

Before carrying out training activities, the team will carry out training preparations, including the following activities(Kamaluddin et al., 2024; Syafariani et al., 2021; Windiyani et al., 2024) (Windiyani et al., 2024):

- Forming a committee
- Creating a schedule of activities
- Distributing resource persons to the community service team
- Preparing training materials
- Preparing equipment needed during training for both the committee and training participants.

Technology training will be divided into several materials

- Training on the use of access rights on the application
- Training for application managers on the flow of master data input and report creation. In this case, the group leader of each conservation and tourism group leader.
- Application training for each officer such as landing officers, nursery officers, hatchling release officers, and conservation activity companion officers. This training is in the form of training on how to collect data through a form on the application and save it in the application.
- Training for coordinators in making performance assessments and supervising officer data collection.
- Training and mentoring on the use of the attendance module application for all officers. The training and mentoring activities for the application will be carried out for 4 days, if needed, there will be additional time for officers to master the application properly and correctly. Training and mentoring will be carried out using smartphones owned by each officer(Kamaluddin et al., 2024).

d. Application of Technology.

After the training and mentoring activities, the service team will divide the tasks to the team and students, to be directly involved in the field with the officers in using the application in each of their work routines. This is needed for the teams to provide reports, whether the level of ability of the officers can be implemented or not as well as to guide the officers if they have difficulty using the application in the field. Each officer will be given 2 companions from the service team and students.

e. Evaluation of Application Usage

Evaluation will be given by team members and students who accompany the officers in the form of a report to the head of the community service. If the report is a technical application and technical problem, then the team leader will hold a discussion again with the teams to make improvements to the application or improve the strategy for using the application.

RESULT AND DISCUSSION

Training preparation

Conducting direct field observations with community group leaders, both conservation groups and tourism groups. The agendas are 1)Conducting discussions/dialogues, 2)Formulating problems, 3) Making solutions, and 4)Submitting solutions. This activity aims to ensure that the applications that have been created are in accordance with the needs of the groups. These activities can be seen in Figure 3 below.



FIGURE 3. Training preparation

In Figure 3, part (a) is the coordination activity with the head of the marine and fisheries service branch regarding the need to build the turtle conservation center in Pangumbahan, and the request for permission for interview activities and direct observation of the Pangumbahan location, part (b) is the interview activity carried out by representatives of students to the conservation group regarding problems that occur when officers carry out conservation activities, (c) interview activities in the tourism section regarding problems that occur in the tourism service section, (d) discussion activities between lecturers and students to formulate solutions and create solutions through proposed technology.

Community service implementation activities

This community service activity was carried out offline, both for training preparation and the training and mentoring activities themselves. So this activity took place from 16.00 until 22.00 WIB. The opening was filled by the MC (Master of Ceremony) with a greeting, and followed by an opening speech by the head of

the community service, Andri Sahata Sitanggung S.Kom. M. Kom. After the opening ceremony, it was continued to the main event, namely the training filled by the Trainer. The trainers consisted of 4 people, namely Daffa Mahendra Al Harizts, Muhammad Al-Giffari, Rifqi Muhammad Hamzah, and Muhammad Irsyaad Fatahilah. This activity was followed by the handover of technology in the form of scanners and receipt printers which were given to representatives from each head of the conservation group and tourism group. A group photo was taken with each group. This training activity is in the form of training and mentoring on the use of the application. The following are the training activities given to community groups in Figure 4.



FIGURE 4. Implementation of Training and Mentoring

Figure 4 explains the implementation of community service activities. For parts (a) and (b) are training on the use of the conservation section application specifically for landing and nursery officers while parts (c) and (d) are training on the use of the application for hatching, quarantine and release of baby turtles officers. Parts (e) and (f) are activities to hand over scanner and printer technology tools to 2 groups, namely conservation and tourism, and parts (g) and (h) is the documentation section after the training and mentoring activities are completed.

1. Application of technology

The application of technology carried out is the activity of groups in carrying out operational activities using technology. These activities are shown in Figure 5.



FIGURE 5. Application of technology

Figure 5 explains the activities of the conservation and tourism community group in carrying out operational activities using scanner and printer technology applications and tools.

2. Evaluation of community service activities

So after the technology was applied to both community groups, data recording was produced through an application input system that looks like an automated report. It can be seen in Figure 6 that each date was inputted properly for the activities of both the conservation group and the tourism group.

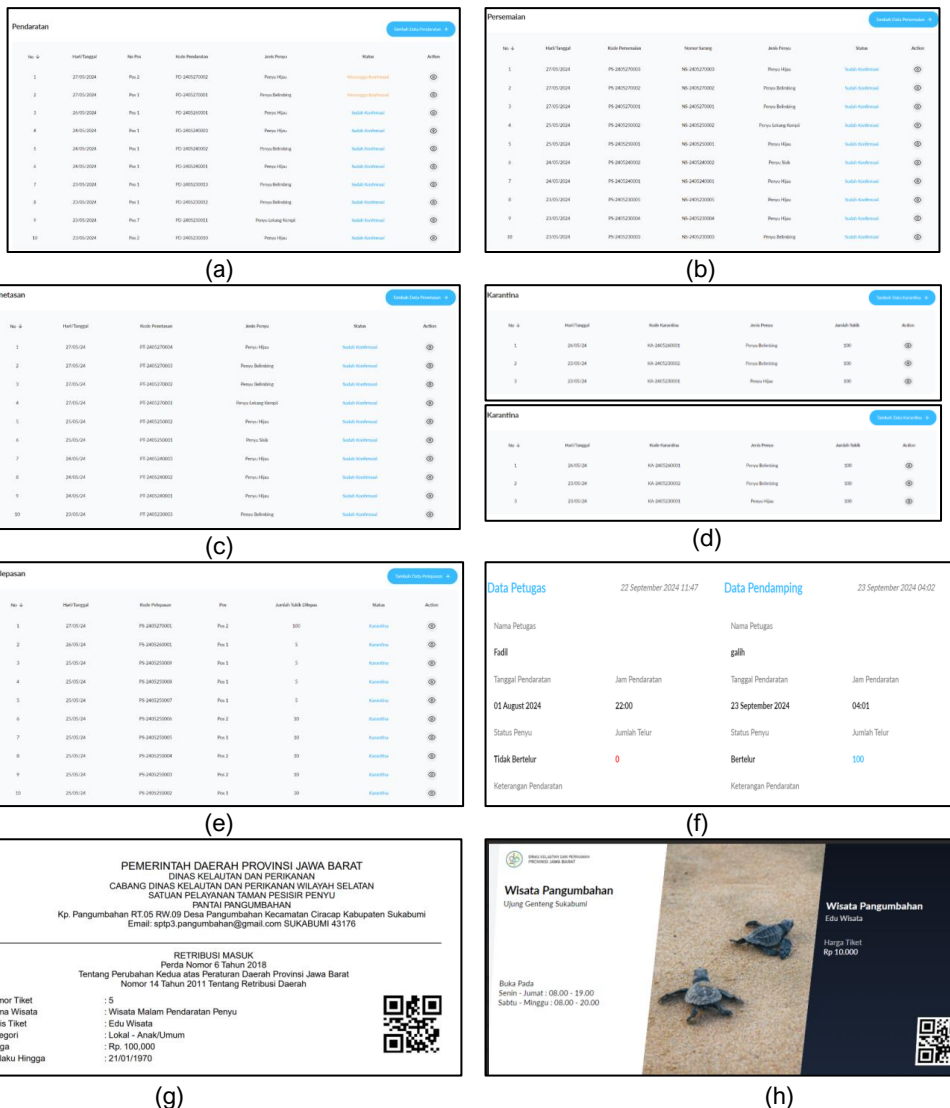


FIGURE 6. Evaluation of community service activities

Figure 6 shows evidence of the results of the Community conservation and tourism group that has implemented technology in its operational activities. Part (a) shows the results of input from landing officers, part (b) shows the results of input from nursery officers, part (c) shows the results of input from hatching officers, part (d) shows the results of input from quarantine officers, part (e) shows the results of input from release officers. The GO-turtles application also implements a monitoring system managed by the coordinator shown in part (f). Evidence of the results that have been implemented by the tourism group can be shown in parts (g) and (h), which consist of direct ticket sales and online ticket reservations.

Based on the evaluation of activities that have been carried out by the team, conservation, and tourism officers have found it easier to fill in data. The results of discussions with the officers said that they no longer had to report to the post and record reports of their activities, speeding up the work of not having to go back and forth to the post to make reports, while the tourism officer said that the service had become more effective using online application technology and scanner technology so that there was no have to experience long queues in serving the ticketing process.

This service activity is also based on research conducted (Mahendra & Asmarajaya, 2022) A system is needed to carry out conservation actions. The research activities include implementing a monitoring system using a GIS system. The most important process in carrying out this research is how to utilize technology, especially in monitoring. So based on the concept carried out in this research, the service team refers to the monitoring method carried out using application technology. Meanwhile, the applications produced in the tourism section refer to research(Saepudin,2022) that the ticketing system is the most important part of avoiding queues for tourists, and the service system through online booking can also expand the marketing of the tour. So the UNIKOM service team innovated by integrating online and offline booking applications using scanner technology so that it not only made things easier for tourism officers. However, it also improves the quality of service to tourists in the booking and payment sections.

CONCLUSION

So after the training and mentoring activities were given and the provision of technology materials in the form of applications and technology tools, both conservation groups and tourism groups were able to apply the use of technology in daily operational activities, this was proven by filling in conservation data in September and being able to fill in data without missing the filling in of the data. While for the tourism group, it was able to fill in data and was able to use scanner technology and printer technology in its operational activities, and was able to make a report in September also with complete information followed by data on the origin of the visitor data area.

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