



Introduction and Utilization of Plants in the Wild for Prospective Members of Mapala Batch XXVII Mapala Paksi Arga Padang Institute of Technology

Pengenalan dan Pemanfaatan Tumbuhan Di Alam Bebas bagi Calon Anggota Mapala Angkatan XXVII Mapala Paksi Arga Institut Teknologi Padang

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Abstract

Nature lover student (mapala) students who often carry out natural exploration activities. Mapala must have the ability to survive and recognize plants that are useful for food and medicine. The limited information that Mapala has about plants in the wild indicates that they need relevant and accountable sources to be able to survive in difficult times. One way to provide sources of information to students is through counseling. The methods used in carrying out this activity are lectures or counseling, discussions, demonstrations and evaluations. Data collection techniques during counseling using questionnaires and interviews. The counseling activity was carried out at the Paksi Arga Nature Lovers Student Group, Padang Institute of Technology. The participants in this activity were attended by 15 nature-loving students at the Paksi Arga Institute of Technology and the organizers consisted of 4 lecturers and 2 students. The output results of the independent t test show that the Sig value is <0.05 , so there is a significant difference between mapala knowledge before and after counseling. Difference in percentage There is an increase in knowledge Mapala plants that can be used for survival are as big as 20,6%, edible plants for survival 27% and plants that can be used as medicine 22,64%.

Keywords: *Mapala, Plants, Survival*

Abstract

Mahasiswa pecinta alam (mapala) para mahasiswa yang sering melaksanakan kegiatan eksplorasi alam. Mapala harus memiliki kemampuan survival dan mengenali tumbuhan yang berguna untuk makanan dan pengobatan. Keterbatasan informasi yang dimiliki Mapala tentang tumbuhan di alam bebas menunjukkan bahwa mereka membutuhkan sumber yang relevan dan dapat dipertanggung jawabkan untuk mampu survive dalam masa sulit. Salah satu cara memberikan sumber informasi kepada mahasiswa adalah melalui penyuluhan. Metode yang digunakan dalam pelaksanaan kegiatan ini adalah ceramah atau penyuluhan, diskusi, demonstrasi dan evaluasi. Teknik pengumpulan data saat penyuluhan dengan menggunakan instrumen angket dan wawancara. Kegiatan penyuluhan dilakukan di Kelompok Mahasiswa Pecinta Alam Paksi Arga, Institut Teknologi Padang. Peserta kegiatan ini dihadiri oleh 15 orang mahasiswa Pecinta alam Paksi Arga Institut Teknologi dan pelaksana terdiri dari 4 orang dosen dan 2 orang mahasiswa. Hasil output independen t test menunjukkan bahwa nilai Sig $< 0,05$, maka terdapat perbedaan yang signifikan antara pengetahuan mapala sebelum dan setelah penyuluhan. Perbedaan persentase Terjadi peningkatan pengetahuan mapala tumbuhan



yang bisa digunakan untuk survival sebesar 20,6%, tumbuhan yang dapat dikonsumsi untuk survival 27% dan tumbuhan yang bisa digunakan sebagai obat 22,64%.

Keywords: *Mapala, Tumbuhan, Survival*

PRELIMINARY

Nature lover students (mapala) are students who often carry out nature exploration activities. This activity is a form of hobby distribution and the formation of a nature-loving character. Usually they explore mountains, rivers, beaches and forests. Mapala must be physically and mentally strong in facing challenges in the wild^[1]. In addition, they must also have manners and ethics when in nature and when climbing.

Mapala must have survival skills and take advantage of the environment, when adventuring unforeseen events may occur. Therefore Mapala must have the ability to optimize the resources around them, especially plants that can be utilized. They must have the ability to recognize plants that are useful during survival, both for food and for treatment^[2] ^[4]. Furthermore, they also have to know the parts and habitats of plants that can be utilized. Some plants that can be consumed have the characteristics of an inconspicuous color, the sap does not change, does not itch the skin, is not thorny, has fine hairs, some has a bitter and unpleasant taste^[3].

In essence, the plants used as survival materials have been understood and used by the ancestors, ethnic tribes in Indonesia as a source of food and medicine. The community has used forest plants to maintain its survival. Plants for treatment have certain biological activity compounds^[9]. According to^[2] Many types of plants that can be used to treat various diseases. The advantage of using plants as a treatment is minimal side effects. Mapala must be able to exploit this potential to survive in difficult situations in a few days.

Development of knowledge about plants that can be used for survival requires a variety of relevant sources. This source of information shows about plant species that can be consumed and used as medicine. Currently, sources of information about plant species that can be used as survival plants cannot be accounted for, because they are written in blogs and articles. Sources of information on survival plants in reading books are rarely found^[5] ^[10]. Mistakes in recognizing plants are fatal for nature lovers.

Based on the description above, exploration of Mapala's knowledge about plants that can be used during survival needs to be done. The results of this counseling are expected to become knowledge for the Mapala in utilizing plants for survival.

METHOD

The counseling activity was carried out at the Paksi Arga Nature Lovers Student Group, Padang Institute of Technology. The participants in the activity were 15 Nature Lovers students at the Paksi Arga Institute of Technology and the implementers consisted of 4 lecturers and 2 students. The method used in carrying out this activity is lecture or counseling, discussion and demonstration of the introduction of plants that are useful as medicine. Before the activity was carried out, all participants were given an initial test to determine their level of knowledge about medicinal plants. At the end of the activity an evaluation of the material that has been delivered is also carried out. Extension and discussion methods are used to describe all material and findings obtained from previous observations and assisted with these findings data. Demonstration activities are carried out to increase the knowledge of extension participants. After counseling and discussion carried out followed by demonstrations and evaluations. This evaluation is intended to measure the level of understanding and acceptance of the extension participants regarding all the material that has been discussed and practiced with the aid of a questionnaire. After that, discussions were held again regarding matters that still needed to be clarified or improved and a commitment was made with the participants to practice and develop on their own according to the understanding they had received

RESULTS AND DISCUSSION

Based on the activities that have been taught, it is found that Mapala Paksi Arga needs a source of information and knowledge about plants that are useful and can be used to survive in the wild. Knowledge and information needed as stated in the questionnaire.

Stage of Implementation of Lecture / Counseling Activities

Activities carried out according to the planned schedule. This activity was held at the ITP Campus, building A, local ALI and was attended by 15 members of Mapala, 4 lecturers and 2 students. This activity was carried out by a team of lecturers from the Hiperkes & Occupational Safety Study Program, STIKES Indonesia Padang. STIKES Indonesia is one of the tertiary institutions that is engaged in the health sector and one of the intensive programs carried out is conducting outreach about public health, especially during the Covid 19 pandemic.

The lectures were conducted by a team of lecturers who were seriously attended by Mapala candidates. To facilitate the introduction of plants, lectures are assisted with the introduction of medicinal plants using pictures that are shown using powerpoint. While lecturing students are allowed to ask questions about the material they doubt. Participants were very enthusiastic about listening to the material presented by the resource persons, because this was very useful for them in the field as first aid if a member was sick



Figure 2. Extension documentation

Demonstration Stage

The team demonstrated several types of plants that can be used for survival for Mapala in nature. Some examples of plants that were demonstrated were mulberry fruit, reeds, harendong bulu, tree leaves and weeds or reeds and others. These plants are introduced as useful plants. Mapala can immediately see objects that are used as plants that can be used for survival. Other important matters conveyed were the need to pay attention when deciding to consume and use as medicine, the plants used do not contain latex, are not hairy, do not contain a strong odor, are not toxic and can be consumed by mammals.^[6]

Knowledge Test Results Before and After Extension Activities

The results of distributing questionnaires regarding knowledge and understanding of the material that has been conveyed in counseling are shown in Table 1.

Table 1. Knowledge Test Results Before and After Extension Activities

No	Respondent's initials	Prior Knowledge of Counseling	Knowledge After Counseling
1.	MH	60	70
2.	MW	40	60



3.	NFH	70	90
4.	NR	50	70
5.	RF	60	80
6.	SZB	30	60
7.	AF	50	80
8.	GP	60	90
9.	MF	60	80
10.	SMM	50	70
11.	RTM	60	70
12.	ASW	40	70
13.	NA	30	60
14.	KF	60	80
15.	AW	40	70
	Jumlah	760	1100
	Rata-rata	50,66	73,33

Table 1 shows the value of mapala knowledge before counseling and after counseling. Based on Table 1, it can be seen that there has been an increase in the value of Mapala's knowledge about plants that can be used for survival. Based on the results of the analysis using the t test, the average mapala knowledge before counseling was 50.6 and after counseling was 73.3. The output results of the independent t test show that the Sig value is <0.05, so there is a significant difference in mapala knowledge before and after counseling.

Prior Knowledge of Counseling

The results of the mapala knowledge questionnaire analysis before counseling about plants that can be used for survival are 46%, knowledge about plants that can be consumed shows a percentage of 53%, and knowledge about plants that can be used as medicine is 53% (Table 1). With an average percentage of the three knowledge is 50.66%. This percentage shows that mapala's knowledge of plants that can be used to survive in nature is still low. The results of the interviews conducted also showed that it was difficult for Mapala to recognize and name plants that could be used as useful materials in nature.

Mapala knowledge about the use of plants in the wild as a whole is low (Table 1)^[7]. This is due to the lack of information about plants that can be used as food and medicine. This lack of information is due to the absence of a special program for introducing plants that can be used to survive in the wild for Mapala. In addition, mapala also lacks reading sources that are able to provide an overview of plant species that can be utilized when conditions do not support mapala in the wild.^[8]. Mapala only knows the plants that are often encountered.

Knowledge After Counseling

The implementation of this extension activity aims to educate mapala about plants that can be used for survival. The results of the mapala knowledge questionnaire analysis before counseling about plants that can be used for survival are 66.6%. knowledge of mapala about plants that can be consumed is 80% and knowledge of mapala about plants that can be used as medicine shows a percentage of 73.3%, with an average percentage of the three knowledge being 73% (Table 1).

The results of the counseling given to Mapala showed that there was an increase in knowledge about plants that could be used to survive in the wild^[9]. An indicator of the success of this extension activity is mapala's ability to answer questions from the implementing team.

The percentage difference is an increase in knowledge Mapala plants that can be used for survival are as big as 20.6%, edible plants for survival 27% and plants that can be used as medicine 22.64% (Table 1).

Activity Stage Evaluation and Promotion of Activity Results

After the counseling is finished, the next stage is the evaluation of the counseling held on the ITP



campus. Evaluation is carried out on the plan for preparing, implementing and reporting program implementation. Evaluation of community service carried out also looks at the effectiveness of planning and implementing counseling. Evaluation is a systematic process of collecting data and interpreting information to determine the goals set for making a decision^[9].

CONCLUSION

Education about Introduction and Utilization of Plants in the Wild for Candidate Members of Mapala Batch XXVII Mapala Paksi Arga Padang Institute of Technology is an effort to increase knowledge and understanding of Mapala about the use of plants that can be used to survive in the wild. This community service activity had an impact on increasing the knowledge of the extension participants. After this counseling activity there was an increase in student knowledge about plants that can be used to survive in the wild. The output results of the independent t test show that the Sig value is <0.05 , so there is a significant difference between mapala knowledge before and after counseling. The percentage difference is an increase in knowledge Mapala plants that can be used for survival are as big as 20.6%, edible plants for survival 27% and plants that can be used as medicine 22.64%.

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