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The Influence Of Training On Increasing Farmers' Knowledge In Healthy Agriculture Based On Agricultural And Health Education In Lebojaya Village, Konda District

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Abstract

Objectives: This study aims to analyze the effect of training using lecture and practice methods with power point presentation media and leaflets on farmers' knowledge in healthy agro-tourism based on agricultural and health education in Lebojaya Village, Konda District, Southeast Sulawesi.
Methods: This study used a quantitative method with a quasi-experimental approach with a one group pretest-posttest design. A total of 16 farmers were trained using lecture and practice methods and power point presentation media and leaflets. Data analysis used the Wilcoxon sign rank test. Training material on balanced nutrition and nutritional content and the benefits of corn and carrots for body health.
Results: The results of this study indicate that there is an increase in farmers' knowledge about balanced nutrition and nutritional content and the benefits of corn and carrots for health. After the training, almost all of the participants' knowledge increased. Where participants who scored above 70 after the training increased by 25%, from 62.5% to 87.5%. The test results showed that there was a significant difference between farmers' knowledge before and after training ($p=0.006 < 0.05$).
Conclusion: Nutrition science training using lecture and practice methods, as well as the use of media power point presentations and leaflets have a significant effect on increasing farmers' knowledge in healthy agro-tourism locations based on agricultural and health education in Lebojaya Village, Konda District. Due to the combination of lecture media and practice as well as the use of media, participants gain knowledge through various senses namely the senses of hearing, seeing and experiencing.

Keywords: Training; Knowledge; Nutrition; Farmer; Vegetable

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INTRODUCTION

The development of vegetable and fruit agricultural land to become a location for healthy agro-tourism based on agricultural and health education in Lebojaya Village requires support and increased competence for farmers. The competencies needed by farmers towards the development of healthy agro-tourism are about nutrition and communication techniques, providing information and education for visitors to healthy agro-tourism. Bearing in mind, the main target of developing healthy agro-tourism based on agricultural and health education in Lebojaya Village is elementary school children. Because the main function of healthy agro-tourism is to provide a learning space for school children related to the science of growing vegetables and fruit, as well as the science of nutrition, namely the nutritional content and benefits of vegetables and fruit for the health of the body. By providing learning spaces and hands-on practice in open and beautiful nature, it will provide school children with a high enthusiasm for learning. With this atmosphere, the knowledge he gets will be easily absorbed or understood, as well as a tendency to further disseminate the new knowledge and skills he has acquired (1).

One of the reasons for the healthy agro-tourism target, namely elementary school children, is that there will be an interest in consuming fruits and vegetables. Considering that the consumption rate of vegetables and fruit is still low in Indonesia, including in Konda District, South Konawe Regency, Southeast Sulawesi (2), (3). Increasing one's knowledge will affect one's attitudes and actions (4), (5). Therefore, it is important for farmers to increase their knowledge and skills in order to provide information and education for visitors on healthy agro-tourism. The farmers naturally and experience, they already understand how to grow vegetables and fruits. Therefore, they only need additional knowledge about nutrition related to the nutritional content of vegetables and fruit and their health benefits. Besides that, skills in how to conduct communication, information and education (IEC) about the science of nutrition.

To increase farmers' knowledge and skills regarding nutrition and IEC techniques, farmers are given training. Several references have stated that the use of media and the selection of methods is very important to produce maximum results in organizing a training. One of the effective media is leaflet (6), and power point presentations (7). While the effective method is stated in several references, namely combining several methods such as lectures with practice using the media. Therefore, this study aims to analyze the effect of training using lecture and practical methods using power point media and leaflets on increasing farmer knowledge in healthy agro-tourism locations based on agricultural and health education in Lebojaya Village, Konda District.

METHOD

This study uses a quantitative method with a quasi-experimental approach with the one-group pretest-posttest design of quasi-experimental design without control (8).

$$O_1 \quad X \quad O_2$$

Figure 1. The one-group pretest-posttest Design of quasi-experimental design without control

Note:
O1 = Pretest,
X = training,
O2 = Posttest

This study recruited 16 farmers from healthy agro-tourism based on agricultural and health education in Lebojaya Village, Konda District, South Konawe Regency, Southeast Sulawesi Province, Indonesia. This research was conducted in October

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2022. The independent variables in this study were training using lecture and practice methods using power point presentation media and leaflets. While the dependent variable is knowledge. The training materials cover balanced nutrition, nutritional content and the benefits of corn and carrots for health.

The process carried out was to conduct a pretest to the participants before giving the material. Then proceed with an explanation of balanced nutrition material and the nutritional content and benefits of corn and carrots for health with lectures and powerpoint presentations. After that, distribution of balanced nutrition leaflets, corn and carrots to the participants. Where, participants were then given time to read the leaflet. Then continued with the practice of conducting KIE using the leaflet media. Participants were divided into 2 groups and each participant in the group was given time to conduct education using leaflet media for 5 minutes. After all the participants had done the practice, then a posttest was carried out.

RESULTS

Characteristics of respondents

Table 1. Characteristics of nutrition science training participants.

Characteristics	Number (n)	Percentage (%)
Age: (Year)		
< 20	1	6.3
20-30	2	12.5
31-40	5	31.3
41-50	6	37.5
>51	2	12.5
Education:		
Primary School	1	6.3
Senior High School	13	81.3
Bachelor degree	2	12.5
Family income: (IDR)		
≤ IDR 2,900,000	12	75.0
>IDR 2,900,000	4	25.0

When viewed from the age of the participants, namely between 19 years to 53 years, or an average age of 40 years. The largest age group of 41-50 years with 6 people (37.5%), then the 31-40 years group with 5 people (31.3%) (Table 1). Meanwhile, participants who were less than 20 years old were only 1 person (6.3%). For education level, most of the participants had high school education, namely 13 people (81.3%), while only 2 people had undergraduate degrees (12.5%) and only 1 person had elementary school education (6.3%). Most of the participant's family income is below the Southeast Sulawesi provincial minimum wage, which is less than IDR 2,900,000.

Participant knowledge

The table below explains the value of the respondents' knowledge before and after the nutrition science training.

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Table 2. Knowledge scores before and after training

Knowledge score	Pres-test		Post-test	
	Number	Percentage	Number	Percentage
≤ 50	2	12.5	0	0.0
> 51 - ≤70	4	25.0	2	12.5
>70	10	62.5	14	87.5
	16	100.0	16	100.0

The pre-training knowledge score showed that there were still a small number of participants who did not understand about balanced nutrition, nutritional content and the health benefits of corn and carrots (12.5%) (Table 2). After the training, almost all of the participants' knowledge increased. Where participants who scored above 70 after the training increased by 25%, from 62.5% to 87.5%.

Effect Of Training On Increased Knowledge

Table 3 describes the results of the Wilcoxon sign ranks test on the effect of nutrition science training using lecture and practice methods using power point media and leaflets.

Table 3. Effect of Nutrition science training on Participant Knowledge

Knowledge (Post test-Pretest)	N	Mean Rank	z	Sig
Negative Ranks	0a	0.00	-2.754d	0.006
Positive Ranks	9b	5.00		
Ties	7c			
Total				

Note:

a. Post test knowledge score < pre test knowledge score
b. Post test knowledge score > pre test knowledge score
c. Post test knowledge score = pre test knowledge score
d. Based on negative ranks

From the results of the Wilxocon signed ranks test, it shows that there are differences in participants' knowledge scores between before and after training on balanced nutrition including the content of vegetables and fruit and their health benefits (p value= 0.006 < 0.05). This can be seen from the results of the average participant knowledge score before the training, which is 73.13, compared to the score after the training, the average participant knowledge score is 83.13. This means that there is a change in the level of knowledge after training in nutrition science and the practice of implementing IEC.

DISCUSSION

The use of appropriate methods and effective media is important for a training to achieve the expected goals. This research has proven that nutrition training for farmers using a combined method of lectures and practice as well as power point presentation media and media leaflets shows an increase in farmers' knowledge on healthy agro-tourism based on agricultural and health education in Lebojaya Village, Konda sub-district, Konawe Selatan Regency, Southeast Sulawesi. The use of power point presentations in training will provide clarity about what the facilitator explains in his lecture. Thus, besides hearing the participants can also see.

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Therefore, the participants' absorption becomes easy and the participants' memory also becomes strong. This is in line with other studies, that the use of power point in the learning process can also increase the critical power of trainees or students (9). Likewise with Leaflet media, in this study it was effective in increasing farmers' knowledge about balanced nutrition, also about the nutritional content of corn and carrots and their health benefits. Leaflets are stated as a form of visual media that can facilitate one's understanding, because there are brief and precise explanations, as well as relevant pictures (10). Thus, apart from being used for training, leaflet media can also be used as an effective health promotion media (11).

Thus, media leaflets on balanced nutrition, as well as leaflets on corn and carrots can be used by farmers to provide information and education to visitors at healthy agro-tourism locations. Several educational institutions, including teachers, also use leaflet media when it is difficult for students to improve their understanding (12). Leaflet media can be developed by students themselves and when this happens, the students' understanding will be very strong. This leaflet media will also be very effective when combined with audio-visual media such as films or videos (13). This media leaflet will help complete the missing messages when listening to information.

CONCLUSIONS

In conclusion, the training about nutrition to farmers using the combination method, namely lecture and practice, as well as the use of media power point presentations and leaflets have a significant effect on increasing farmers' knowledge in healthy agro-tourism locations based on agricultural and health education in Lebojaya Village, Konda District. This is because the combination of lecture media and practice as well as the use of media, the farmers in healthy agriculture based on agricultural and health education in Lebojaya village gain clear knowledge because the methods included various senses, such as hearing, seeing and experiencing. Therefore, the farmer's absorption and memory of the training material is greater, compared to using only one sense.

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