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**[ISFFS-2021] Call for Papers**

5 pesan

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Kepada: Tatty.yuni@gmail.com

22 April 2021 pukul 14.50

**Tatty Yuniarti****Lecturer Poltek AUP Jakarta****Call for Papers**

We are pleased to inform you that International Seminar on Fish and Fisheries Sciences (ISFFS) is going to conduct virtually on July 13-14, 2021. The ISFFS 2021 is hosted by The Indonesian Ichthyological Society, Faculty of Marine Science and Fisheries, Udayana University, Research Center for Fisheries-Marine and Fisheries Affairs, Research Center for Biology-Indonesian Institute of Science, BIONESIA- Biodiversitas Indonesia, Faculty of Fisheries and Marine Sciences-IPB University and The Jakarta Technical University of Fisheries.

With the theme "Science and innovative technologies for ensuring the long-term sustainability of fisheries towards Society 5.0", the topic areas of this seminar including Fish Biology and Ecology, Fisheries Biology, Fish Taxonomy, Fish Genetic, Fish Diseases, Fisheries Oceanography, Biodiversity and Conservation, Biotechnology, Aquaculture, Ornamental Fish, Fisheries Management, Fisheries Socio-economics, Fisheries Extension, Marine and Freshwater Ecotourism, Recreational Fisheries, Fish Processing Technology and other related topics are welcomed.

We would like to invite you to submit your abstracts and contribute your research paper for this seminar. Please forward this message to your colleagues, students or anyone who you may think interest to this seminar.

For more information, please visit our website: <https://isffs-mii.org>. (CP: Charles P.H. Simanjuntak: +62-812-8714-8424; Prawira A. R. P. Tampubolon: +62 852-3111-0625).

We look forward to welcoming you to ISFFS 2021. Thank you.

Sincerely,

ISFFS Committee

*Download ISFFS 2021 Flyer here*

<http://drive.google.com/uc?export=view&id=1thmaMao6YH20KDD5HzwbYWt00AVKMzhs>

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**Tatty Yuniarti** <tatty.yuni@gmail.com>  
Kepada: isffs.mii@gmail.com

27 Mei 2021 pukul 12.51

Attached article abstract for ISFFS.

Hopefully it can be accepted and published on

the E3S Web of Conference.

Best regards,


[Kutipan teks disembunyikan]

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**Tatty Yuniarti**

*Department of Fisheries Extension*  
**Jakarta Technical University of Fisheries**  
Field Practice, Communication and Extension Unit  
Cikaret No. 2, Bogor City, West Java  
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**ISFFS Committee Secretariat** <isffs.mii@gmail.com>  
Kepada: Tatty Yuniarti <tatty.yuni@gmail.com>

27 Mei 2021 pukul 12.58

Dear, Tatty Yuniarti

Thank you for your submission.

The submitted abstract will be reviewed by the reviewer and the result will be informed soon.

**For registering your participation in this seminar, please fill the linked form below:**

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Sincerely,

ISFFS 2021 Organizing Committee (INYP)

[Kutipan teks disembunyikan]

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**Tatty Yuniarti** <tatty.yuni@gmail.com>  
Kepada: ISFFS Committee Secretariat <isffs.mii@gmail.com>

27 Mei 2021 pukul 13.32

[Kutipan teks disembunyikan]

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**Tatty Yuniarti**

*Departement of Fisheries Extension*

[Kutipan teks disembunyikan]

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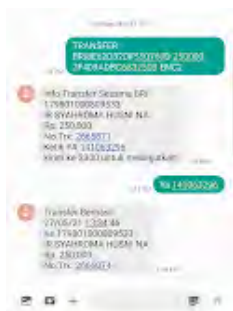
**Tatty Yuniarti** <tatty.yuni@gmail.com>  
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27 Mei 2021 pukul 13.44

attached here is proof of payment as a

participant in an international seminar (ISFFS)

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**bukti participant.jpeg**  
82K

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**[ISFFS] The Result of Plagiarism Check**

7 pesan

**ISFFS Committee Secretariat** <isffs.mii@gmail.com>

12 Agustus 2021 pukul 10.00

Kepada: Nayu Nurmalia &lt;nayunurmalia@yahoo.com&gt;

Cc: Tatty Yuniarti &lt;Tatty.yuni@gmail.com&gt;, charles ph simanjuntak &lt;charles\_phs@apps.ipb.ac.id&gt;

Dear Nayu Nurmalia,

We would like to inform you that we have checked the plagiarism of your paper using Turnitin and it showed that your paper has similarities of more than 15% (the file has attached). Please make a revision of your paper so that the similarity is below 15% and no one article has a similarity of more than 3% with any article.

We hope to get the revised paper no later than **20 August 2021**.

--

Sincerely,

ISFFS 2021 Organizing Committee

Indonesian Ichthyological Society (Masyarakat Iktiologi Indonesia)

Widyasatwaloka, Division of Zoology,

Research Center for Biology, Indonesian Institute of Science (LIPI)

[Jl. Raya Jakarta-Bogor Km 46, Cibinong 16911](#)Website: <https://isffs-mii.org>E-mail: [isffs.mii@gmail.com](mailto:isffs.mii@gmail.com)

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**Nayu Nurmalia** <nayunurmalia@yahoo.com>

17 Agustus 2021 pukul 19.05

Balas Ke: "nayunurmalia@yahoo.com" &lt;nayunurmalia@yahoo.com&gt;

Kepada: Tatty Yuni &lt;tatty.yuni@gmail.com&gt;

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----- Pesan yang Diteruskan -----

**Dari:** "ISFFS Committee Secretariat" <isffs.mii@gmail.com>**Kepada:** "Nayu Nurmalia" <nayunurmalia@yahoo.com>**Cc:** "Tatty Yuniarti" <Tatty.yuni@gmail.com>, "charles ph simanjuntak" <charles\_phs@apps.ipb.ac.id>**Terkirim:** Kam, 12 Agt 2021 pada 10:00**Judul:** [ISFFS] The Result of Plagiarism Check

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**Tatty Yuniarti** <tatty.yuni@gmail.com>

26 Agustus 2021 pukul 00.22

Kepada: ISFFS Committee Secretariat &lt;isffs.mii@gmail.com&gt;

Terlampir perbaikan artikel sesuai saran reviewer.

Mohon pencerahan mengenai daftar pustaka mengacu ke style apa?

Terima kasih

[Kutipan teks disembunyikan]

# p/FSE#02

*by P/fse 02*

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**Submission date:** 11-Aug-2021 08:14PM (UTC+0700)

**Submission ID:** 1630267934

**File name:** p\_FSE-02.docx (125.21K)

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# Community Empowerment through Processed Diversification and Marketing Strategy of the Gemari Woman Polkahsar in Pemalang District

**Abstract.** Pemalang is one of the sub-districts in Pemalang district which has considerable fishery potential. One area of business is the processing of fisheries. Products in each group vary, such as fish thrown, salted fish, fish cake, and fish chips. The identification of the problem hasn't added to the variety of fisheries processing products, packaging is less interesting. The purpose of research is increased knowledge, skill, and attitude through outsourcing activities about product diversification and the marketing strategy. Research was carried out on 2<sup>nd</sup> March – 15 Mei 2020. Counseling methods with group meetings, demonstrations of tutorials, lecture, and group discussion with the aim of Poklahsar Wanita Gemari. Counseling activities include (1) Diversification of Processed Fish (2) Marketing Strategy through packaging designs, (3) Counseling about Online Marketing. The T test conducted with SPSS shows a significant value of 0,000 which indicates that the counseling activities have a significant effect on improving the aspects of respondents' knowledge, skills and attitudes.

*Keywords: Processing fishery products, fishery, aspect of attitude, knowledge, and skill*

## 1 Introduction

Pemalang is one of the sub-districts in Pemalang regency that has considerable fishery potential. The area of Pemalang subdistrict is 10,193 ha and consists of 20 villages and villages bordering the Java Sea in the north, Randudongkal and Bantarbolang subdistricts to the south, Tegal Regency to the west and Taman Subdistrict to the east [1]. The potential of developing fisheries is the field of fishery processing business conducted by fishery processing groups.

Pemalang sub-district has 54 fishery households (RTP) that strive in the field of fish processing. The RTP is divided into seven processing groups. The types of processed fish produced in general do not vary. Processed fish products include fish crackers, pindang and salted fish [2]. The result of the identification of processing group problems in this preliminary study is the limited variety of processed fish products caused by the fishery households is the limited variety of processed fish products. The cause of the problem was by the fishery households didn't not yet know the variation of fishery processing products. The ability to make varied products through the right technology can be used to increase the income of the fishery households [3].

Another problem is that the way of packaging processed fish products is still simple. This simple packaging causes consumers to be less interested in processed products of fish processing groups in Pemalang Subdistrict. This results in the selling price of the

product to be low. Products with attractive packaging will cause enough sensory stimulation to be noticed and remembered by consumers so that consumers are interested in buying products [4]. Product packaging is very influential on the selling value of products, because packaging is a way to increase the company's profit. Packaging should be made as attractive as possible is expected to attract and attract the attention of consumers. In addition, packaging can also reduce damage to goods and provide ease in the delivery process [5].

Marketing of processed fish products produced by fish processors in Pemalang subdistrict still uses conventional means. The strategy that can be done by small and medium enterprises (SMEs) to increase revenue is to expand the marketing network, maintain quality and improve sales services and increase cooperation with relevant agencies and other cooperatives / SMEs to gain access to raw materials [6]. Counseling can improve target insights so that it has the ability to market products produced online through the use of electronic media or the internet. Processed products produced are able to reach a wider market at a low cost, as well as partners have a media promotion of various processed fish products in the form of brochures / leaflets, promotional CDs, and websites. Online marketing impacts the well-being of families targeted at counseling [7]. Research aim was to improve knowledge, skills and attitudes through product diversification and marketing strategies of fish processing groups (Wanita Gemari Poklahsar) in Pemalang Subdistrict through counseling.

## 2. Materials and methods

The research was conducted on March 2, 2020 to May 15, 2020. The research location is in Pemalang District, Pemalang Regency, Central Java Province. The research location was chosen purposively because it was close to the source of fish raw materials at TPI Tanjung Sari and the Fisheries Service of Pemalang Regency. Research respondents are ten members of the processing and marketing group (Poklahsar) for Wanita Gemari in Pemalang District.

Data on natural resources and human resources of fisheries obtained from (a) Central Bureau of Statistics (BPS), (b) Office of the Fisheries Office of Pemalang Regency (c) Work Plan of Fishery Extension and (d) Study of literature and internet. The methods used in this study are group and individual approaches including demonstration of how to diversify processed fish, marketing strategies through packaging design, online marketing. Counseling on diversification of processed fish, marketing strategies through packaging design and online marketing are conducted at the group chairman's house.

The extension media are folders and booklets that are given to respondents, namely members of the Wanita Gemasi Poklahsar. Responses from respondents to determine the increase in knowledge, attitudes and skills of respondents were evaluated using a questionnaire for initial evaluation (pre test) and final evaluation (post test). Data retrieval techniques are conducted with interviews, observations and documentation. The evaluation result is calculated the value of the change by finding the difference from the initial evaluation or pre test activities and the final evaluation or post test so that the value of the change is obtained.

Evaluation of the impact of counseling includes the stage of adoption of innovation, the details of the evaluation of the stage of innovation adoption is (1) Awareness or awareness, i.e. the goal of starting to be aware of the innovation offered by the extension, (2) Interest or the growth of interest that is often characterized by his desire to ask or know more about everything related to innovation offered by the extension, (3) Evaluation or assessment of the good/bad or benefits of innovation that have been known to be more complete information (4) Trial or try on a small scale to further convince the



assessment before applying for a wider scale (5) Adoption or applying with confidence based on assessments and trials that have been conducted or observed by themselves [8].

Analysis of the data using SPSS version 23 to determine changes in the implementation of counseling on changes in the level of knowledge, skills and attitudes of the target.

### 3. Results and Discussion

Pemalang District is one of the sub-districts in Pemalang Regency, Central Java Province. The boundaries of the territory are marked with gates and stakes. The types of village/kelurahan boundaries on land can be in the form of natural boundaries or artificial boundaries. Artificial boundaries are man-made elements such as boundary pillars, roads, railways, irrigation canals and so on which are declared or set as village/kelurahan boundaries (Handoyo, 2011).

The research respondents were members of the Wanita Gemari Poklaksar group of 15 people. The internal characteristics of the respondents including the target age, education level, and business experience can be seen in Table 1.

Table 1. Age, Education Level, and Business Experience of Respondents

Age			*Education Level			Business Experience		
Categories	Standard (years)	amount (respondents)	Categories	Standard	amount (respondents)	categories	Standard (years)	amount (respondents)
young	≤ 39	2	low	≤ 2	4	new	≤ 2	3
middle	39 > X ≤ 48	5	middle	2 > X ≤ 3	5	middle	2 > X ≤ 4	6
old	> 48	3	high	> 3	1	long	> 4	1
Amount		10	Amount		10	Amount		10

\*Education level: 0 = No education; 1= primary school; 2 = Junior high school; 3 = Senior High School; 4= undergraduate; 5= post graduate; 6= Doctoral

Based on Table 1, it can be seen that of the 10 target people, there are two people included in the young age category, five people in the middle age category and three people in the old age category. The working population is the population aged 15 years and over. The population included in the productive age is the population in the age range of 15-65 years. Populations who are not included in the productive age category are people aged < 15 years and aged > 65 years [10]. Based on observations in the field, the total respondents are included in the category of productive age with the age range of respondents ranging from 39 to 48 years.

The education level of the respondents is four people who are included in the category of low education, five people are included in medium education and one person is included in higher education. Factors that influence learning success include individual age, talent, learning capacity, learning objectives, level of aspirations, understanding of what will be learned and knowledge of success and failure [11].

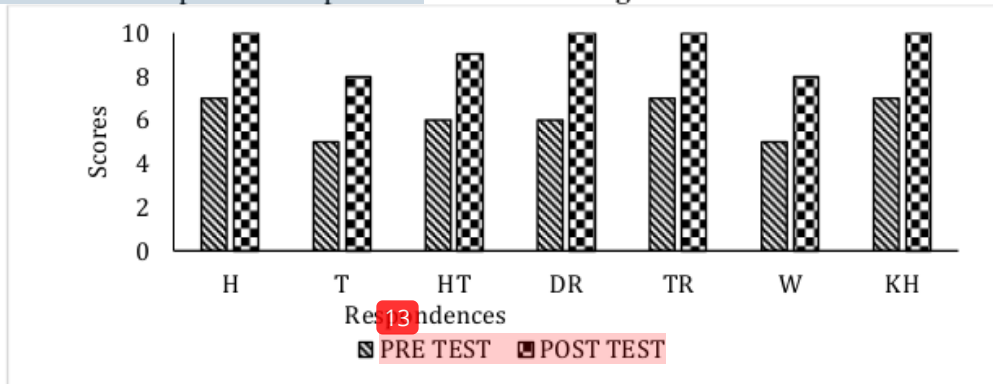
There are three respondents' business experience in the new category, six in the medium category and one in the old category. The length of the business opening can affect the level of income and the length of the business will affect its productivity (ability/skills). The longer the work experience, the more understanding consumer tastes or behavior will be [12].

#### 3.1 Counseling on Diversification of Processed Fish

Counseling with diversified fish processing materials aims to improve the knowledge, attitudes and skills of the target in making innovations made from fish, namely amplang



crackers. The material given is emphasized on; (1) how to file fish, (2) maintain freshness of fish by using ice during processing (3) apply good production methods by applying cleanliness of tools, materials, and self (4) procedure for making amp 24 g crackers. In the extension activities with the 23 ersification of processed fish material, pre-test and post-test 20 re carried out to measure changes in the level of knowledge and attitudes of respondents. The results of the pre-test and post-test are shown in Figure 1.

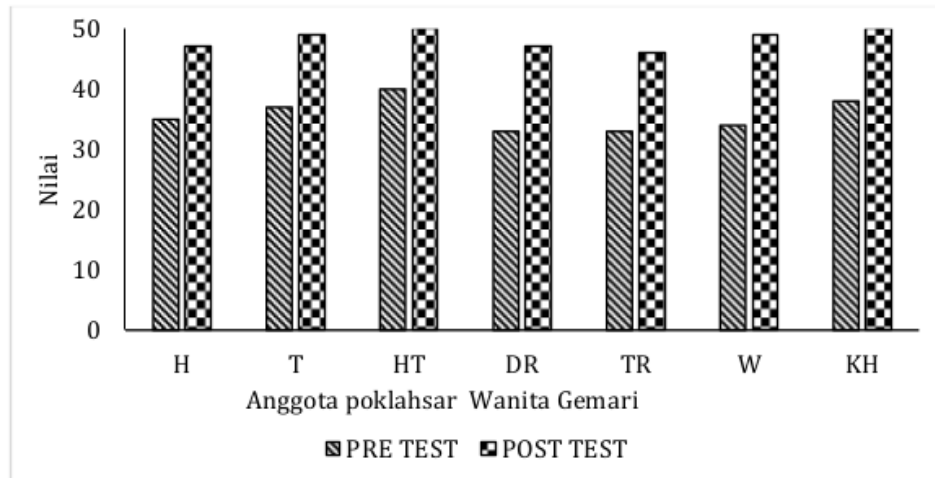


**Figure 1.** Results of Pre-test and Post-test on Knowledge of respondents.

(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

The data were analyzed by using the paired T test or the comparison/difference test of two paired data. The average result of the pre-test score is 6.14 and the average post-test score is 9.29. The number of respondents as many as 7 people. There is a significant average difference of 3.15 points. There was an increase in understanding of the knowledge aspect of the respondents. Counseling on the diversification of processed fish uses the demonstration method with the aim that the counseling material can be absorbed by the target optimally because it can be understood through the senses of hearing, the senses of sight and the active participation of respondents with direct practice. Counseling will increase the knowledge of respondents because it is supported by media that support the counseling process. This is in accordance with the statement [13], that the learning process will run effectively and efficiently if it is supported by supporting media. Participants will be more stimulated if media or facilities are provided that support the interaction process. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge.

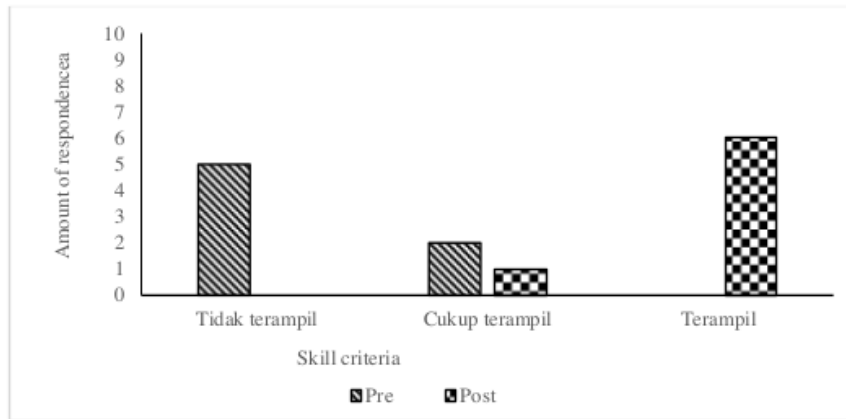
Based on the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ , it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an influence from the extension action activities on demonstrations of how to make amplang crackers. Meanwhile, to measure the attitude aspect of the main actors, it is shown in Figure 2.



**Figure 2.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklamsar)

Based on Figure 2, there was an increase in the attitude aspect of respondents in outreach activities about fish processing diversification. There are three important variables in the formation of attitudes, namely attention, understanding and acceptance, which in its implementation go through several stages. The first stage is that the stimulus delivered will be answered by paying attention to the content of the stimulus. The second stage occurs a process of understanding the concept that is made, but if the concept is not understood then the second stage cannot be achieved. The third stage is a reaction in the form of action, namely a change in attitude, this means that the stimulus has been received through the process of attention, understanding, in the components of cognition and affection. [14]. The data from the pre-test and post-test on the attitude aspect were then analyzed using a paired T-test or a comparison/difference test of two paired data. The average result of the pre-test score is 35.71 and the average post-test score is 48.29, so it can be concluded that there is a significant difference between the pre-test and post-test results, which is 12.58 points. This shows that there is an increase in the attitude aspect of the respondents. Paired samples test was carried out to determine the effect of counseling action activities on increasing respondents' attitudes.

Based on the results of a paired samples test, it can be concluded that the value of sig. (2-tailed) of 0.000 < 0.05, it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an influence from the extension action activities on demonstrations of how to make amplang crackers. Changes as a result of the learning process can be shown in various forms such as changing knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15]. Furthermore, for the recapitulation results of the evaluation of the diversification skills aspect of processed fish at the Wanita Gemari Poklamsar, it is presented in Figure 3.

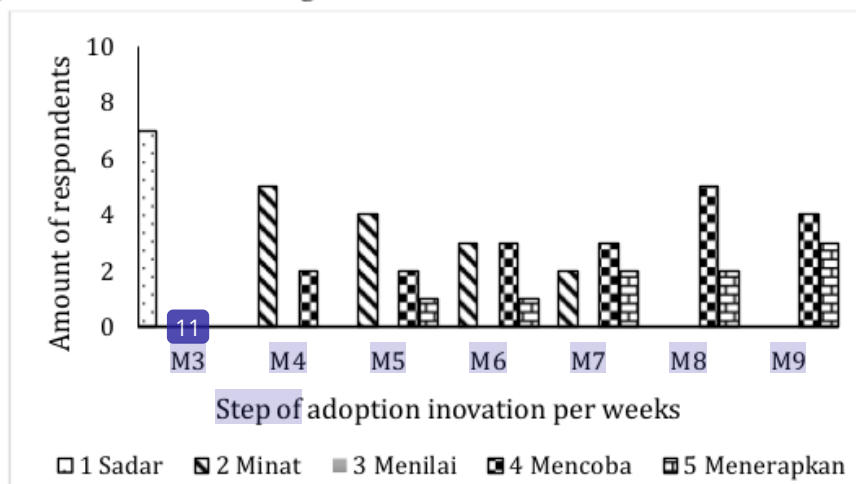


3 **Figure 3.** The results of the evaluation of the skills aspect

Based on the data in Figure 3, it can be seen that the demonstration activity of the demonstration of how to make amplang crackers improved the skills of the respondents. It can be seen that before the extension action was carried out there were 5 respondents who were unskilled and 2 respondents were quite skilled, and there was an increase in the skills of the respondents after the extension action was carried out, namely 1 person who was quite skilled and 6 skilled.

The performance of students in demonstrating their skills in doing something can be measured through observation techniques [16]. Counseling is carried out using direct practical methods supported by other media such as print media in the form of leaflets, broadcast media and direct media, which are expected to improve skills and can independently demonstrate the material that has been given and can process various kinds of processed fish independently. This agrees with the statement [13] that a person's knowledge is received through the senses, the most channeling knowledge into the brain is the sense of sight, approximately 75% to 87% of human knowledge is obtained / transmitted through the sense of sight, 13% through the sense of hearing and another 12% is channeled through the other senses.

The evaluation of innovation adoption was carried out by observing respondents through whatsapp online media because of conditions that did not allow to observe directly the level of acceptance and application of respondents to the material or innovations that had been submitted regarding the application of making amplang crackers. Data on the adoption of respondents' innovations for counseling demonstrations on how to make amplang crackers are shown in **Figure 4**.

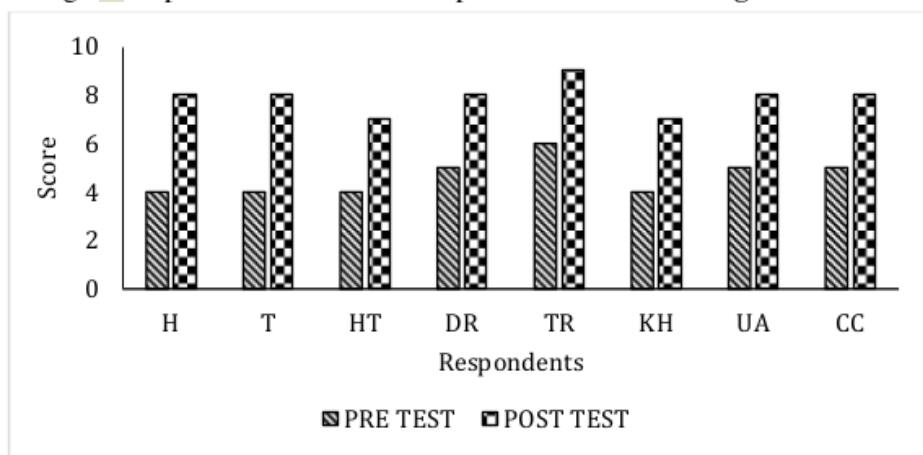


**Figure 4.** Adoption of processed fish diversification innovation  
(M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

Based on the data in **Figure 4**, there was an increase in the adoption stage, in the 1st week respondents were aware of the importance of diversifying processed fish innovations, in the 4th week there were respondents who were interested and tried to process amplang crackers, while in the 5th to 9th week they had there are respondents who apply the material to demonstration activities on how to use amplang crackers in their business/business activities. This is because of the enthusiasm of the respondents with the processed diversification material provided, the material was well received and there was good feedback from the demonstration activity on how to make this amplang cracker. The success of an education is influenced by strategies and methods as well as learning aids used in the educational process, for that it needs to be designed effectively [17].

### 3.2 Results of Marketing Strategy Counseling through Packaging Design

Counseling on marketing strategies through packaging design aims to increase knowledge, attitudes and adoption innovation towards packaging of processed products produced by Poklahsar Wanita Gemari. [18] argues that marketers are ultimately responsible for defining the characteristics that differentiate their products and providing clear contrasts between products. So that the product packaging design is able to provide clear and specific information to consumers, and the point of comparison, a purchase has been motivated. Evaluation of counseling using pre-test and post-test to measure the level of knowledge of respondents to the material provided is shown in **Figure 5**.

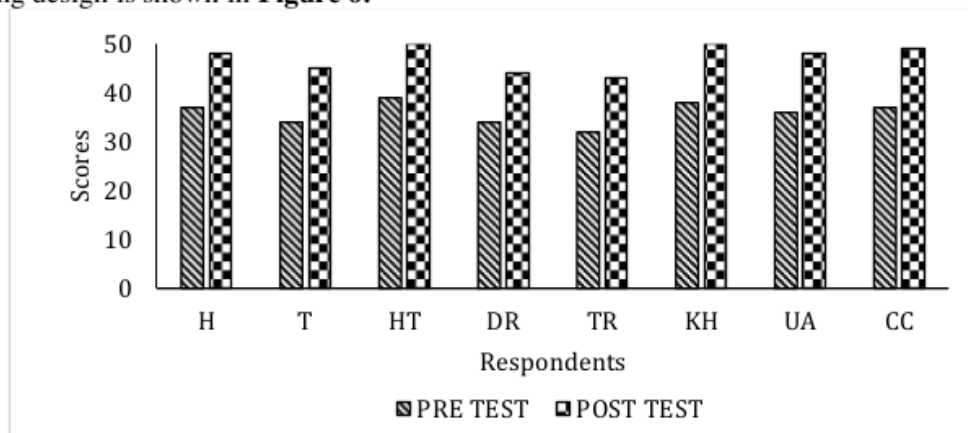


**Figure 5.** The results of the evaluation of the knowledge aspect  
(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

The data from the pre-test and post-test on the knowledge aspect were then analyzed using a paired T test or a comparison/difference test of two paired data. The results of the paired test analysis. The results of the knowledge evaluation conducted on 8 respondents with an average pre-test score of 4.63 and an average post-test score of 7.88, so it can be concluded that there is a significant average difference between the results pre-test and post-test that is equal to 3.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge.



Based on the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ , it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an influence from the counseling action activities on packaging design that are carried out, to influence early recipients, it does not require persuasion because they themselves are always trying to find something that can provide benefits in social or economic life [19]. Evaluation of the attitude aspect of respondents/main actors towards counseling regarding packaging design is shown in **Figure 6**.



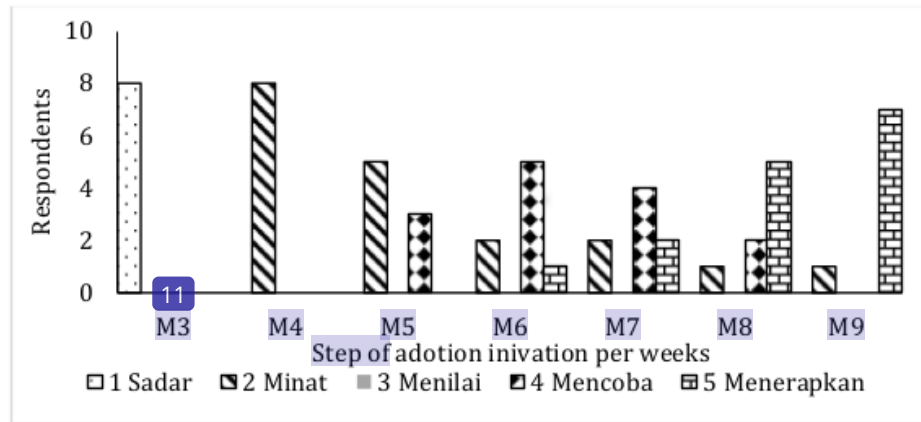
**Figure 6.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

Attitude is a way of reacting to a stimulus that comes from the surroundings, either from people, objects, or situations that affect it [16]. Based on the graph in **Figure 6**, the attitude aspect of respondents in counseling about marketing strategies through packaging design has increased significantly. The data from the evaluation of the attitude aspect was then analyzed using a paired T test or a comparison/difference test of two paired data. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' attitudes.

The results of the attitude evaluation carried out on 8 respondents with an average pre-test score of 35.88 and an average post-test score of 47.13, so it can be concluded that there is a significant difference between the results of the pre-test, test and post-test that is equal to 11.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. This agrees with [20] which states that without a change in attitude, increasing knowledge and improving skills in training participants, the program can be said to be a failure. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge.

Based on the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ , it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an influence from the extension action activities on packaging design. Changes as a result of the learning process can be shown in various forms such as changing knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15].

Evaluation of innovation adoption is carried out by observing respondents through whatsapp online media, namely observing the level of acceptance and application of respondents to the innovation material that has been submitted regarding the application of the use of packaging label designs. Data on the adoption of respondents' innovations for counseling about packaging label design is shown in **Figure 7**.



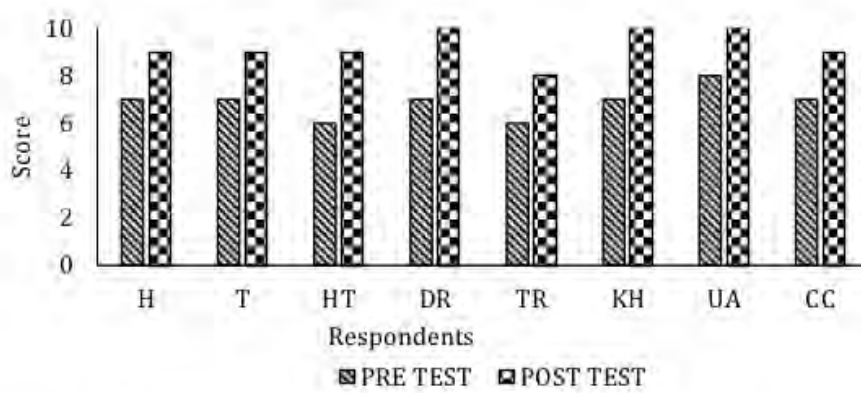
**Figure 7.** Adoption of innovations on counseling on packaging design ( M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

Based on **Figure 7**, there is an increase in the adoption stage every week. In the 3rd week the respondents were in the conscious stage, in the 4th week there were respondents who had reached the interest stage, in the 5th week there were respondents already at the stage of trying to identify the processed product so that information about the product could be listed on the packaging label in accordance with the requirements that must be listed on the packaging label. In weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities. Respondents are aware of the importance of packaging for their products because packaging will give an impression to consumers. The enthusiasm of respondents to change the packaging to be more attractive and informative increased through this outreach activity. This is in line with the statement [4] that packaging is one of the strategies used by companies to make products more attractive in terms of shape, color, product quality can be maintained. Currently, many companies are aware of creating attractive product packaging. This is because the company uses the package at the same time for promotion.

### 3.3 Results of Online Marketing Counseling

Evaluation of the results of the extension is used to measure the level of knowledge and attitudes of respondents to the material provided. Human knowledge is obtained through his perception of the stimulus by using the senses. The result of perception in the form of information will be stored in the memory system to be processed and given meaning, then the information is used (retrieval) when needed [21]. The results of the evaluation of counseling about online marketing on the knowledge aspect of the respondents are shown in **Figure 8**

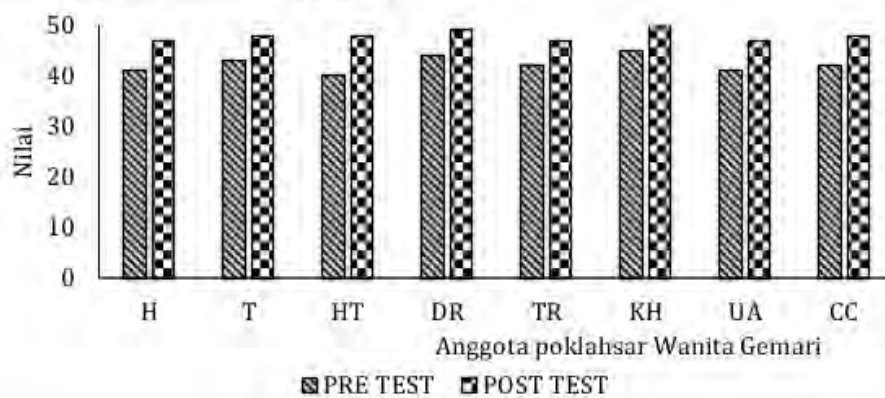




**Figure 8.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

Based on **Figure 8**, there was a significant increase in the knowledge aspect of the extension activities carried out. The data from the pre-test and post-test on the knowledge aspect were then analyzed using a paired T test or a comparison/difference test of two paired data. The average result of the evaluation of the knowledge of 8 respondents in **Figure 8** with a pre-test value of 6.88 and the average post-test score of 9.25, so it can be concluded that there is a significant average difference between the results pre-test and post-test that is equal to 2.37 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge.

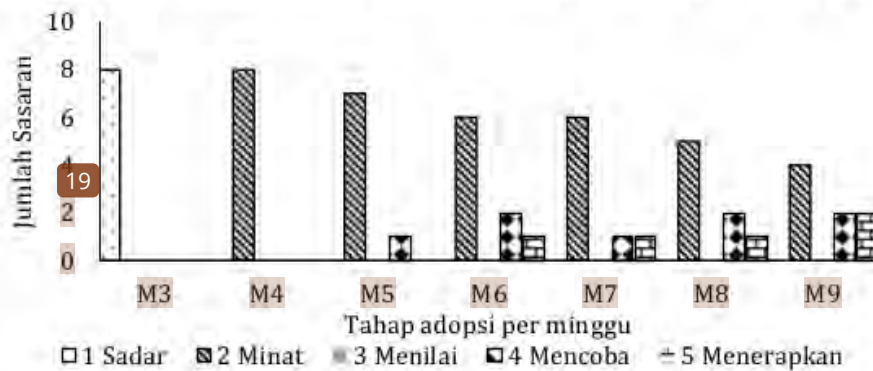
Based on the results of paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ , it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an influence from the extension action activities on packaging design. Counseling is one way that can be done to increase knowledge/information for the community. Face-to-face counseling and providing information directly is expected to be more effective than counseling through mass media or leaflets [22]. Furthermore, the results of the attitude aspect assessment are shown in **Figure 9**.



**Figure 9.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

The results of the attitude evaluation scores of 9 respondents are the pre-test average value of 42.25 and the post-test average value of 48.00, so it can be concluded that there is a significant average difference between the results of the pre-test and post-test that is equal to 6.25 points. This shows that there is an increase understanding of the knowledge aspect of the respondents (main actors). Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge.

Based on the results of paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ , it can be interpreted that there is a significant difference in average between the results of the pre-test and post-test, which means that there is an effect of counseling action activities online marketing, while measuring the attitude aspect of respondents/actors main. The significance value (2-tailed)  $< 0.05$  indicates a significant difference between the initial and final variables. This shows that there is a significant effect on the difference in the treatment given to each variable [23]. Evaluation of respondents' adoption of innovation on online marketing counseling is shown in Figure 10.



**Figure 10.** Adoption of Innovation towards online marketing counseling  
M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

Based on the data in Figure 10, it can be seen that there is an increase in the adoption stage per week. In the 3rd week the respondents were at the conscious stage, in the 4th week there were already respondents who reached the interest stage. In week 5 there are respondents who are already in the trying stage, in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities. The respondent's obstacle in the adoption stage of online marketing is that most of the respondents do not own a mobile phone personally, so it is difficult to understand how to use internet facilities, but the target realizes that online marketing is very supportive in product promotion in a wide range. This is in line with the statement that online marketing has several advantages, namely, a wider reach, saving time, effort, and costs, easier processes, ease of supervision, ease of managing inventory control and without space limits [24].

#### 4. Conclusion

Counseling using the method of demonstration carried out to groups of Wanita Gemari Poklahsar who enjoy fish processing diversification, marketing strategies for fishery products through packaging design and online marketing can improve the attitudes, knowledge and skills of respondents. Counseling is important for the main fishery actors to increase their self-capacity which in turn has an impact on their income and welfare.



There is a need for support and guidance by local extension workers in providing information on technological innovations and fish processing diversification innovations so that group business activities continue to develop. The need for assistance to groups regarding the application of technology that is needed to support product marketing with an online system

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# Community Empowerment through Processed Diversification and Marketing Strategy of the Gemari Woman Polkahsar in Pemalang District

**Abstract.** Pemalang is one of the sub-districts in Pemalang district which has considerable fishery potential. One area of business is the processing of fisheries. Products in each group vary, such as fish thrown, salted fish, fish cake, and fish chips. The identification of the problem hasn't added to the variety of fisheries processing products, packaging is less interesting. The purpose of research is increased knowledge, skill, and attitude through outsourcing activities about product diversification and the marketing strategy. Research was carried out on 2<sup>nd</sup> March – 15 Mei 2020. Counseling methods with group meetings, demonstrations of tutorials, lecture, and group discussion with the aim of Poklahsar Wanita Gemari. Counseling activities include (1) Diversification of Processed Fish (2) Marketing Strategy through packaging designs, (3) Counseling about Online Marketing. The T test conducted with SPSS shows a significant value of 0,000 which indicates that the counseling activities have a significant effect on improving the aspects of respondents' knowledge, skills and attitudes.

*Keywords: Processing fishery products, fishery, aspect of attitude, knowledge, and skill*

## 1 Introduction

Pemalang is one of the sub-districts in Pemalang regency that has considerable fishery potential. The area of Pemalang subdistrict is 10,193 ha and consists of 20 villages and villages bordering the Java Sea in the north, Randudongkal and Bantarbolang subdistricts to the south, Tegal Regency to the west and Taman Subdistrict to the east [1]. The potential of developing fisheries is the field of fishery processing business conducted by fishery processing groups.

Pemalang sub-district has 54 fishery households (RTP) that strive in the field of fish processing. The RTP is divided into seven processing groups. The types of processed fish produced in general do not vary. Processed fish products include fish crackers, pindang and salted fish [2]. The result of the identification of processing group problems in this preliminary study is the limited variety of processed fish products caused by the fishery households is the limited variety of processed fish products. The cause of the problem was

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by the fishery households didn't not yet know the variation of fishery processing products. The ability to make varied products through the right technology can be used to increase the income of the fishery households [3].

Another problem is that the way of packaging processed fish products is still simple. This simple packaging causes consumers to be less interested in processed products of fish

processing groups in Pemalang Subdistrict. This results in the selling price of the product to be low. Products with attractive packaging will cause enough sensory stimulation to be noticed and remembered by consumers so that consumers are interested in buying products [4]. Product packaging is very influential on the selling value of products, because packaging is a way to increase the company's profit. Packaging should be made as attractive as possible is expected to attract and attract the attention of consumers. In addition, packaging can also reduce damage to goods and provide ease in the delivery process [5].

Marketing of processed fish products produced by fish processors in Pemalang subdistrict still uses conventional means. The strategy that can be done by small and medium enterprises (SMEs) to increase revenue is to expand the marketing network, maintain quality and improve sales services and increase cooperation with relevant agencies and other cooperatives / SMEs to gain access to raw materials [6]. Counseling can improve target insights so that it has the ability to market products produced online through the use of electronic media or the internet. Processed products produced are able to reach a wider market at a low cost, as well as partners have a media promotion of various processed fish products in the form of brochures / leaflets, promotional CDs, and websites. Online marketing impacts the well-being of families targeted at counseling [7]. Research aim was to improve knowledge, skills and attitudes through product diversification and marketing strategies of fish processing groups (Wanita Gemari Poklahsar) in Pemalang Subdistrict through counseling.

## 2. Materials and methods

The research was conducted on March 2, 2020 to May 15, 2020. The research location is in Pemalang District, Pemalang Regency, Central Java Province. The research location was chosen purposively because it was close to the source of fish raw materials at TPI Tanjung Sari and the Fisheries Service of Pemalang Regency. Research respondents are ten members of the processing and marketing group (Poklahsar) for Wanita Gemari in Pemalang District.

Data on natural resources and human resources of fisheries obtained from (a) Central Bureau of Statistics (BPS), (b) Office of the Fisheries Office of Pemalang Regency (c) Work Plan of Fishery Extension and (d) Study of literature and internet. The methods used in this study are group and individual approaches including demonstration of how to diversify processed fish, marketing strategies through packaging design, online marketing. Counseling on diversification of processed fish, marketing strategies through packaging design and online marketing are conducted at the group chairman's house.

The extension media are folders and booklets that are given to respondents, namely members of the Wanita Gemasi Poklahsar. Responses from respondents to determine the increase in knowledge, attitudes and skills of respondents were evaluated using a questionnaire for initial evaluation (pre test) and final evaluation (post test). Data retrieval techniques are conducted with interviews, observations and documentation. The evaluation result is calculated the value of the change by finding the difference from the initial evaluation or pre test activities and the final evaluation or post test so that the value of the change is obtained.

Evaluation of the impact of counseling includes the stage of adoption of innovation, the details of the evaluation of the stage of innovation adoption is (1) Awareness stage, where the respondent begins to become aware of the innovations offered by the extension worker, (2) Interest stage is be marked by his desire to ask or know more about everything related to the innovation suggested by the extension, (3) The assessing stage is the stage carried out by the respondent after considering the benefits obtained when applying the extension material (4) The trying stage is the respondent tries on a small scale to be more confident in his

assessment before applying it to a wider scale (5) Adoption or applying with confidence based on assessments and trials that have been conducted or observed by themselves [8].

Analysis of the data using SPSS version 23 to determine changes in the implementation of counseling on changes in the level of knowledge, skills and attitudes of the target.

### 3. Results

#### 3.1 Characteristics of Respondents

Pemalang District is one of the sub-districts in Pemalang Regency, Central Java Province. The boundaries of the territory are marked with gates and stakes. The types of village boundaries on land can be in the form of natural boundaries or artificial boundaries. Artificial boundaries are man-made elements such as boundary pillars, roads, railways, irrigation canals and so on which are declared or set as village boundaries (Handoyo, 2011).

The research respondents were members of the Wanita Gemari Poklalsar group of 10 people. The internal characteristics of the respondents including the age, education level, and business experience can be seen in Table 1.

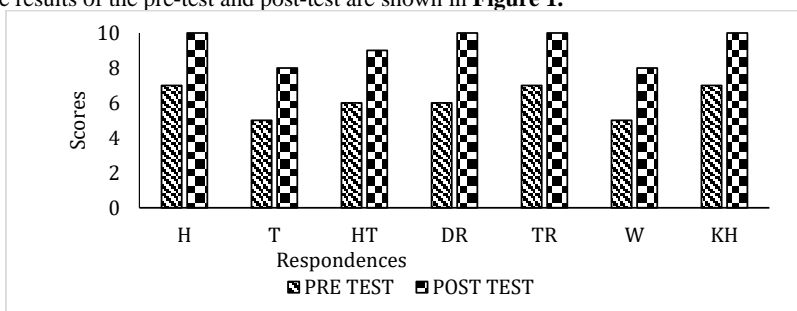
Table 1. Age, Education Level, and Business Experience of Respondents

Age			*Education Level			Business Experience		
Categories	Standard (years)	amount (respondents)	Categories	Standard	amount (respondents)	categories	Standard (years)	amount (respondents)
Young	≤ 39	2	low	≤ 2	4	new	≤ 2	3
Middle	39 > X ≤ 48	5	middle	2 > X ≤ 3	5	middle	2 > X ≤ 4	6
Old	> 48	3	high	> 3	1	long	> 4	1
Amount		10	Amount		10	Amount		10

\*Education level: 0 = No education; 1= primary school; 2 = Junior high school; 3 = Senior High School; 4= undergraduate; 5= post graduate; 6= Doctoral

#### 3.2 Counseling on Diversification of Processed Fish

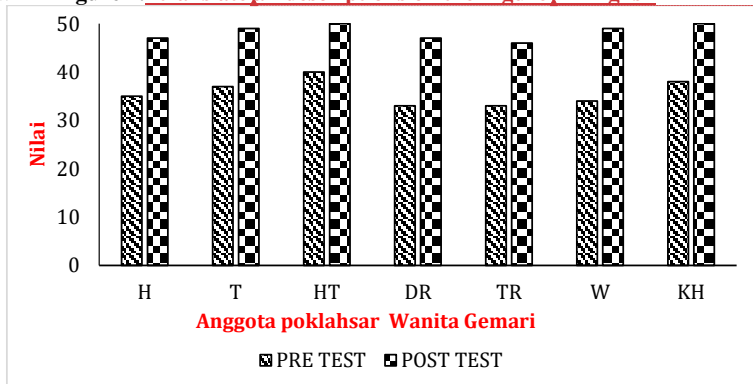
Counseling with diversified fish processing materials aims to improve the knowledge, attitudes and skills of the target in making innovations made from fish, namely amplang crackers. The material given is emphasized on; (1) how to file fish, (2) maintain freshness of fish by using ice during processing (3) apply good production methods by applying cleanliness of tools, materials, and self (4) procedure for making amplang crackers. In the extension activities with the diversification of processed fish material, pre-test and post-test were carried out to measure changes in the level of knowledge and attitudes of respondents. The results of the pre-test and post-test are shown in **Figure 1**.



**Figure 1.** Evaluation of changes in respondent's knowledge.  
(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklachsar)

The data were analyzed by using the paired T test or the comparison/difference test of two paired data. The average result of the pre-test score is 6.14 and the average post-test score is 9.29. The number of respondents as many as 7 people. There is a significant average difference of 3.15 points.

The results of the paired samples test obtained the value of sig. (2-tailed) of  $0.000 < 0.05$ . This value states that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from the extension on demonstrations of how to make amplang crackers. Meanwhile, to measure the attitude aspect of the main actors, it is shown in **Figure 2.** translate all descriptions on the Figure in English

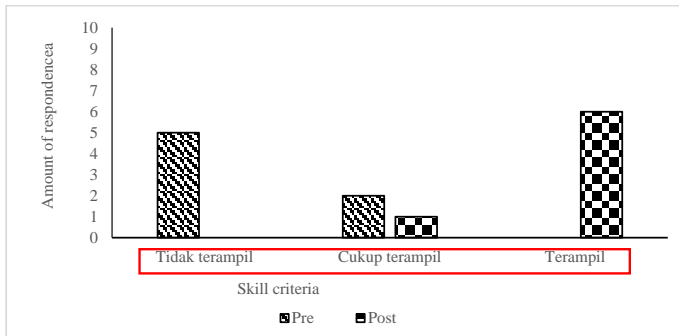


**Figure 2.** The results of the evaluation of the attitude aspect  
(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklachsar)

The data from the evaluation on the attitude aspect were then analyzed using a paired T-test or a comparison/difference test of two paired data. The average result of the pre-test score is 35.71 and the average post-test score is 48.29. there is a significant average difference between the results of the pre-test and post-test, which is 12.58 points. This shows that there is an increase in the attitude aspect of the respondents. Paired samples test was carried out to determine the effect of counseling action activities on increasing respondents' attitudes.

Paired samples test on the value of sig. (2-tailed) of  $0.000 < 0.05$ , indicating that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from outreach activities regarding demonstrations on how to make amplang crackers. Changes as a result of the learning process can be shown in various forms such as changing knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15]. Furthermore, for the recapitulation results of the evaluation of the diversification skills aspect of processed fish at the Wanita Gemari Poklachsar, it is presented in **Figure 3.** translate all the descriptions on the pictures in English

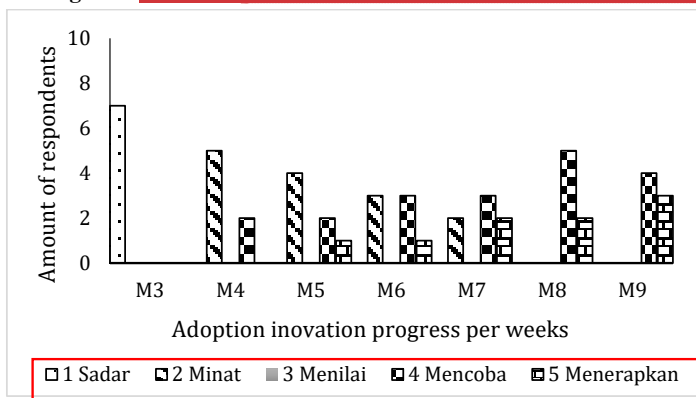




**Figure 3.** The results of the evaluation of the skills aspect

The evaluation of innovation adoption was carried out by observing respondents through whatsapp online media because of conditions that did not allow to observe directly the level of acceptance and application of respondents to the material or innovations that had been submitted regarding the application of making amplang crackers. Data on the adoption of respondents' innovations for counseling demonstrations on how to make amplang crackers are shown in **Figure 4.** [translate; all the descriptions on the pictures in English](#)

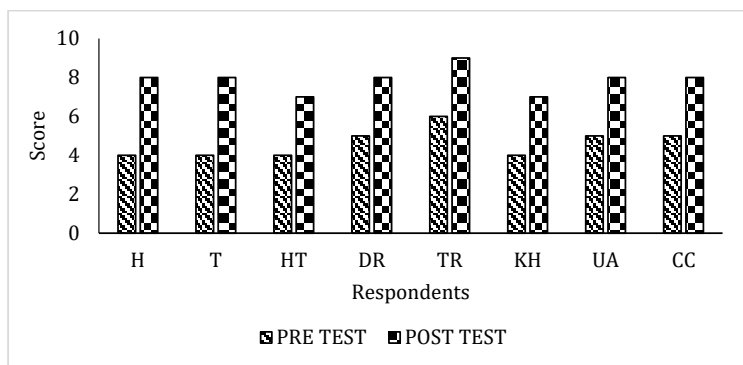
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**Figure 4.** Adoption of processed fish diversification innovation  
( M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

### 3.3 Results of Marketing Strategy Counseling through Packaging Design

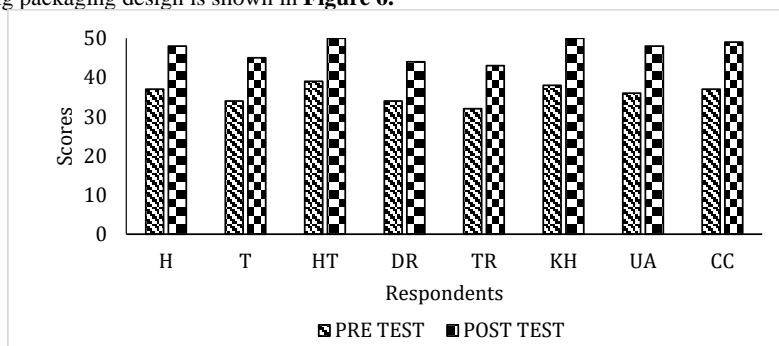
Counseling on marketing strategies through packaging design aims to increase knowledge, attitudes and adoption innovation towards packaging of processed products produced by Poklhasar Wanita Gemari. [18] argues that marketers are ultimately responsible for defining the characteristics that differentiate their products and providing clear contrasts between products. So that the product packaging design is able to provide clear and specific information to consumers, and one point of comparison, a purchase has been motivated. Evaluation of counseling using pre-test and post-test to measure the level of knowledge of respondents to the material provided is shown in **Figure 5.**



**Figure 5.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

The results of the evaluation of the knowledge aspect were then analyzed using a paired T test or a comparison/difference test of two paired data. The results of the paired T test analysis. The results of the knowledge evaluation conducted on 8 respondents with an average pre-test score of 4.63 and an average post-test score of 7.88. There is a significant average difference between the results pre-test and post-test. The average difference is equal to 3.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test carried out to determine the effect of extension action activities on increasing respondents's knowledge.

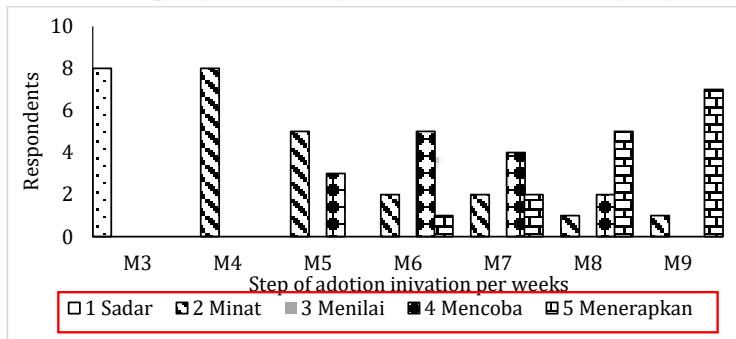
Evaluation of the attitude aspect of respondents/main actors towards counseling regarding packaging design is shown in **Figure 6**.



**Figure 6.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklahsar)

Attitude is a way of reacting to a stimulus that comes from the surroundings, either from people, objects, or situations that affect it [16]. Based on the graph in **Figure 6**, the attitude aspect of respondents in counseling about marketing strategies through packaging design has increased significantly. The data from the evaluation of the attitude aspect was then analyzed using a paired T test or a comparison/difference test of two paired data. Paired samples test determined the extension activities effect on increasing respondents's attitudes.

Evaluation of innovation adoption is carried out by observing respondents through whatsapp online media, namely observing the level of acceptance and application of respondents to the innovation material that has been submitted regarding the application of the use of packaging label designs. Data on the adoption of respondents' innovations for counseling about packaging label design is shown in **Figure 7**. translate all the descriptions on the pictures in English

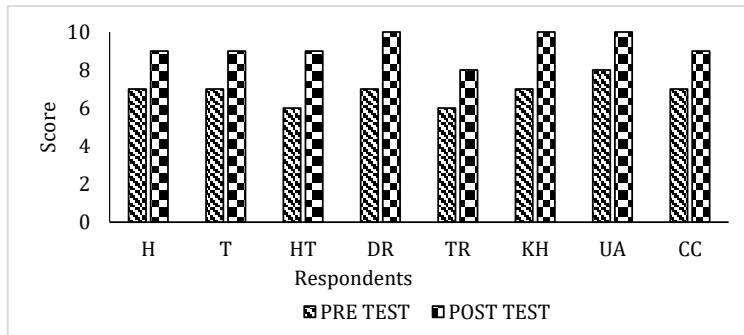


**Figure 7.** Adoption of innovations on counseling on packaging design ( M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

Based on **Figure 7**, there is an increase in the adoption stage every week. In the 3<sup>rd</sup> week the respondents were in the conscious stage. In the 4<sup>th</sup> week there were respondents who had reached the interest stage. In the 5<sup>th</sup> week there were respondents already at the stage of trying to identify the processed product so that information about the product could be listed on the packaging label in accordance with the requirements that must be listed on the packaging label. In weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities.

### 3.4 Results of Online Marketing Counseling

Evaluation of the results of the extension is used to measure the level of knowledge and attitudes of respondents to the material provided. Knowledge gained through his perception of the stimulus by using the senses. The result of perception in the form of information will be stored in the memory system to be processed and given meaning, then the information is used (retrieved) when needed [21]. The results of the evaluation of counseling about online marketing on the knowledge aspect of the respondents are shown in **Figure 8**

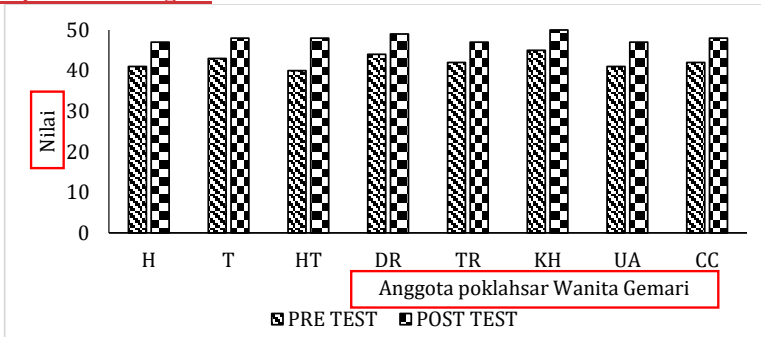


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**Figure 8.** The results of the evaluation of the knowledge aspect  
(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklaksar)

Based on **Figure 8**, there was a significant increase in the knowledge aspect of the extension activities carried out. The results of the evaluation of the knowledge aspect were analyzed using a paired T test or a comparison/difference test of two paired data. The average result of the evaluation of the knowledge of 8 respondents in Figure 8, shows a pre-test score of 6.88 and the post-test score of 9.25. That was concluded that there is a significant average difference is equal to 2.37 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents' knowledge. Furthermore, the results of the attitude aspect assessment are shown in **Figure 9**. translate all the descriptions on the pictures in English

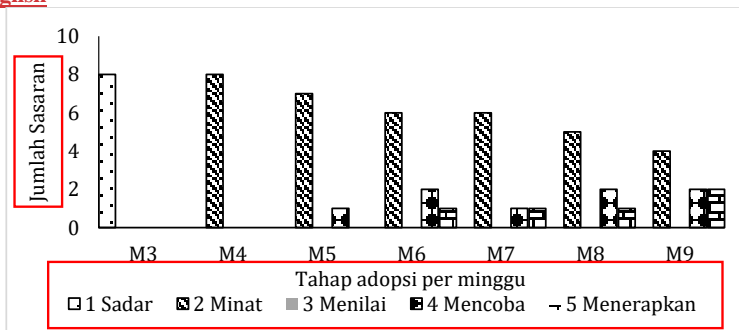
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**Figure 9.** The results of the evaluation of the attitude aspect  
(H, T, HT, DR, TR, KH, UA is a member of the Wanita Gemari Poklaksar)

The results of the attitude evaluation scores of 9 respondents are the pre-test average scores of 42.25 and the post-test average value of 48.00. It can be concluded that there is a significant difference between the pre-test and post-test scores to 6.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents (main actors). Paired samples test was to determine extension activities effects on increasing respondents's knowledge. Evaluation of respondents's adoption of innovation on online marketing counseling is shown in **Figure 10**. translate all the descriptions on the pictures in English

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**Figure 10.** Adoption of Innovation towards online marketing counseling

M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

**Figure 10** shows that there is an increase in the adoption stage per week. In the 3<sup>rd</sup> week the respondents were at the conscious stage, in the 4<sup>th</sup> week there were already respondents who reached the interest stage. In week 5 there are respondents who are already in the trying stage, in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities.

## 4. Discussion

### 4.1 Characteristics of respondents

The characteristics of respondent based on Table 1, it can be seen that of the 10 target people, there are two people included in the young age category, five people in the middle age category and three people in the old age category. The working population is the population aged 15 years and over. The population included in the productive age is the population in the age range of 15-65 years. Populations who are not included in the productive age category are people aged < 15 years and aged > 65 years [10]. Based on observations in the field, the total respondents are included in the category of productive age with the age range of respondents ranging from 39 to 48 years.

The education level of the respondents is four people who are included in the category of low education, five people are included in medium education and one person is included in higher education. Factors that influence learning success include individual age, talent, learning capacity, learning objectives, level of aspirations, understanding of what will be learned and knowledge of success and failure [11].

There are three respondents' business experience in the new category, six in the medium category and one in the old category. The length of the business opening can affect the level of income and the length of the business will affect its productivity (ability/skills). The longer the work experience, the more understanding consumer tastes or behavior will be [12].

### 4.2 Counseling on Diversification of Processed Fish

There was an increase in understanding of the knowledge aspect of the respondents as shows in **Figure 1**. Counseling on the diversification of processed fish uses the demonstration method with the aim that the counseling material can be absorbed by the target optimally because it can be understood through the senses of hearing, the senses of sight and the active participation of respondents with direct practice. Counseling will increase the knowledge of respondents because it is supported by media that support the counseling process. This is in accordance with the statement [13], that the learning process will run effectively and efficiently if it is supported by supporting media. Participants will be more stimulated if media or facilities are provided that support the interaction process. Paired samples test has been carried out to determine the effect of extension action activities on increasing respondents's knowledge.

Based on **Figure 2**, there was an increase in the attitude aspect of respondents in outreach activities about fish processing diversification. There are three important variables in the formation of attitudes, namely attention, understanding and acceptance, which in its implementation go through several stages. The first stage is that the stimulus delivered will



be answered by paying attention to the content of the stimulus. The second stage occurs a process of understanding the concept that is made, but if the concept is not understood then the second stage cannot be achieved. The third stage is a reaction in the form of action, namely a change in attitude, this means that the stimulus has been received through the process of attention, understanding, in the components of cognition and affection [14].

**Figure 3** shows that the demonstration activity of how to make amplang crackers improved the skills of the respondents. It can be seen that before the extension action was carried out there were 5 respondents who were unskilled and 2 respondents were quite skilled, and there was an increase in the skills of the respondents after the extension action was carried out, namely 1 person who was quite skilled and 6 skilled.

The performance of students in demonstrating their skills in doing something can be measured through observation techniques [16]. Counseling is carried out using direct practical methods supported by other media such as print media in the form of leaflets, broadcast media and direct media, which are expected to improve skills and can independently demonstrate the material that has been given and can process various kinds of processed fish independently. This agrees with the statement [13] that a person's knowledge is received through the senses, the most channeling knowledge into the brain is the sense of sight, approximately 75% to 87% of human knowledge is obtained / transmitted through the sense of sight, 13% through the sense of hearing and another 12% is channeled through the other senses.

Based on the data in **Figure 4**, there was an increase in the adoption stage, in the 1st week respondents were aware of the importance of diversifying processed fish innovations, in the 4th week there were respondents who were interested and tried to process amplang crackers, while in the 5th to 9th week they had there are respondents who apply the material to demonstration activities on how to use amplang crackers in their business/business activities. This is because of the enthusiasm of the respondents with the processed diversification material provided, the material was well received and there was good feedback from the demonstration activity on how to make this amplang cracker. The success of an education is influenced by strategies and methods as well as learning aids used in the educational process, for that it needs to be designed effectively [17].

### 3.3 Marketing Strategy Counseling through Packaging Design

The evaluation of the knowledge aspect of marketing strategy counseling through packaging design in **Figure 5**, was analyzed by the paired samples test returns the value of sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test and post-test. That means there is an influence from the counseling action activities on packaging design that are carried out, to influence early recipients, it does not require persuasion because they themselves are always trying to find something that can provide benefits in social or economic life [19].

**Figure 6** was show the attitude evaluation carried out on 8 respondents, was result an average pre-test score of 35.88 and an average post-test score of 47.13. It was a significant difference between the pre-test and post-test score, that is equal to 11.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. This agrees with [20] which states that without a change in attitude, increasing knowledge and improving skills in training participants, the program can be said to be a failure. Paired samples test was to determine the extension activities effect on increasing respondents's knowledge.

The paired samples test results the value of sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test

and post-test. It means that there is an influence from the extension action activities on packaging design. Change is a form of the result of the learning process. These changes can be shown in various forms such as increased knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15].

**Figure 7** shows in weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities. Respondents are aware of the importance of packaging for their products because packaging will give an impression to consumers. The enthusiasm of respondents to change the packaging to be more attractive and informative increased through this outreach activity. This is in line with the statement [4] that packaging is one of the strategies used by companies to make products more attractive in terms of shape, color, product quality can be maintained. Currently, many companies are aware of creating attractive product packaging. This is because the company uses the package at the same time for promotion.

### 3.4 Results of Online Marketing Counseling

**Figure 8** shows that the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference the pre-test and post-test. It means that there is an influence from the extension activities on packaging design. Counseling is one way that can be done to increase knowledge/information for the community. Face-to-face counseling and providing information directly is expected to be more effective than counseling through mass media or leaflets [22].

**Figure 9** shows that the results of the paired samples test was the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference between the pre-test and post-test scores. It means that there is an effect of counseling action activities on online marketing, while measuring the attitude aspect of respondents/actors main. The significance value (2-tailed)  $< 0.05$  indicates a significant difference between the initial and final variables. This shows that there is a significant effect on the difference in the treatment given to each variable [23].

**Figure 10** shows in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities. The respondent's obstacle in the adoption stage of online marketing is that most of the respondents do not own a mobile phone personally, so it is difficult to understand how to use internet facilities, but the target realizes that online marketing is very supportive in product promotion in a wide range. This is in line with the statement that online marketing has several advantages, namely, a wider reach, saving time, effort, and costs, easier processes, ease of supervision, ease of managing inventory control and without space limits [24].

## 5. Conclusion

Counseling using the method of demonstration carried out to groups of Wanita Gemari Poklahsar who enjoy fish processing diversification, marketing strategies for fishery products through packaging design and online marketing can improve the attitudes, knowledge and skills of respondents. Counseling is important for the main fishery actors to increase their self-capacity which in turn has an impact on their income and welfare.

There is a need for support and guidance by local extension workers in providing information on technological innovations and fish processing diversification innovations so

that group business activities continue to develop. The need for assistance to groups regarding the application of technology that is needed to support product marketing with an online system.

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Dear committe of ISSFS 2021,  
Here we have revised our manuscript according to the reviewer 1 &2 comments  
Thank you very much,Best regards,  
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# Community Empowerment through Processed Diversification and Marketing Strategy of the ~~Wanita Gemari Woman~~ Polkahsar in Pemalang District

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**Abstract.** Pemalang is one of the sub-districts in Pemalang district which has considerable fishery potential. One area of business is the processing of fisheries. Products in each group vary, such a fish thrown, salted fish, fish cake, and fish chips. The identification of the problem hasn't added to the variety of fisheries processing products, packaging is less interesting. The purpose of research is to increase knowledge, skill, and attitude through outsourcing activities about product diversification and the marketing strategy. Research was carried out on 2<sup>nd</sup> March – 15 Mei 2020. Counseling methods with group meetings, demonstrations of tutorials, lecture, and group discussion with the aim of Poklahsar Wanita Gemari. Counseling activities include (1) ~~Diversification diversification of Processed-processed Fish-fish~~, (2) ~~Marketing-marketing Strategy strategy~~ through packaging designs, and (3) ~~Counseling-counseling~~ about ~~Online-online Marketing-marketing~~. The T test conducted with SPSS shows a significant value of 0,000 which indicates that the counseling activities have a significant effect on improving the aspects of respondents' knowledge, skills and attitudes.

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*Keywords: Processing fishery products, fishery, aspect of attitude, knowledge, and skill*

## 1 Introduction

Pemalang is one of the sub-districts in Pemalang regency that has considerable fishery potential. The area of Pemalang subdistrict is 10,193 ha and consists of 20 villages and villages bordering the Java Sea in the north, Randudongkal and Bantarbolang subdistricts to the south, Tegal Regency to the west and Taman Subdistrict to the east [1]. The potential of developing fisheries is the field of fishery processing business conducted by fishery processing groups.

Pemalang sub-district has 54 fishery households (RTP) that strive in the field of fish processing. The RTP is divided into seven processing groups. The types of processed fish produced in general do not vary. Processed fish products include fish crackers, pindang and salted fish [2]. The result of the identification of processing group problems in this preliminary study is the limited variety of processed fish products caused by the fishery households is the limited variety of processed fish products. The cause of the problem was

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by the fishery households didn't not yet know the variation of fishery processing products. The ability to make varied products through the right technology can be used to increase the income of the fishery households [3].

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Another problem is that the way of packaging processed fish products is still simple. This simple packaging causes consumers to be less interested in processed products of fish processing groups in Pemalang Subdistrict. This results in the selling price of the product to be low. Products with attractive packaging will cause enough sensory stimulation to be noticed and remembered by consumers so that consumers are interested in buying products [4]. Product packaging is very influential on the selling value of products, because packaging is a way to increase the company's profit. Packaging should be made as attractive as possible is expected to attract and attract the attention of consumers. In addition, packaging can also reduce damage to goods and provide ease in the delivery process [5].

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Marketing of processed fish products produced by fish processors in Pemalang subdistrict still uses conventional means. The strategy that can be done by small and medium enterprises (SMEs) to increase revenue is to expand the marketing network, maintain quality, and improve sales services and increase cooperation with relevant agencies and other cooperatives ~~to~~ SMEs to gain access to raw materials [6]. Counseling can improve target insights so that it has the ability to market products produced online through the use of electronic media or the internet. Processed products produced are able to reach a wider market at a low cost, as well as partners have a media promotion of various processed fish products in the form of brochures ~~or~~ leaflets, promotional CDs, and websites. Online marketing impacts the well-being of families targeted at counseling [7]. Research aim was to improve knowledge, skills and attitudes through product diversification and marketing strategies of fish processing groups (Wanita Gemari Poklahsar) in Pemalang Subdistrict through counseling.

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## 2. Materials and methods

The research was conducted on March 2, 2020 to May 15, 2020. The research location is in Pemalang District, Pemalang Regency, Central Java Province. The research location was chosen purposively because it was close to the source of fish raw materials at [TPI fish landing site](#) Tanjung Sari and the Fisheries Service of Pemalang Regency. Research respondents are ten members of the processing and marketing group (Poklahsar) for Wanita Gemari in Pemalang District.

Data on natural resources and human resources of fisheries obtained from (a) Central Bureau of Statistics (BPS), (b) Office of the Fisheries Office of Pemalang Regency (c) Work Plan of Fishery Extension, and (d) Study of literature and internet. The methods used in this study are group and individual approaches including demonstration of how to diversify processed fish, marketing strategies through packaging design, online marketing. Counseling on diversification of processed fish, marketing strategies through packaging design, and online marketing are conducted at the group chairman's house.

The extension media are folders and booklets that are given to respondents, namely members of the ~~Wanita Gemari~~ ~~Woman Poklahsar~~. Responses from respondents to determine the increase in knowledge, attitudes and skills of respondents were evaluated using a questionnaire for initial evaluation (pre test) and final evaluation (post test). Data retrieval techniques are conducted with interviews, observations, and documentation. The evaluation result is calculated the value of the change by finding the difference from the initial evaluation or pre test activities and the final evaluation or post test so that the value of the change is obtained.

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Evaluation of the impact of counseling includes the stage of adoption of innovation, the details of the evaluation of the stage of innovation adoption is (1) ~~Awareness~~ awareness stage, where the respondent begins to become aware of the innovations offered by the extension worker, (2) ~~Interest~~ interest stage is be marked by his desire to ask or know more about everything related to the innovation suggested by the extension, (3) ~~The~~ the assessing

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stage is the stage carried out by the respondent after considering the benefits obtained when applying the extension material. (4) ~~The-the~~ trying stage is the respondent tries on a small scale to be more confident in his assessment before applying it to a wider scale. (5) ~~Adoption adoption~~ or applying with confidence based on assessments and trials that have been conducted or observed by themselves [8].

Analysis of the data using SPSS version 23 to determine changes in the implementation of counseling on changes in the level of knowledge, skills, and attitudes of the target.

### 3. Results

#### 3.1 Characteristics of ~~Respondentsrespondents~~

Pemalang District is one of the sub-districts in Pemalang Regency, Central Java Province. The boundaries of the territory are marked with gates and stakes. The types of village boundaries on land can be in the form of natural boundaries or artificial boundaries. Artificial boundaries are man-made elements such as boundary pillars, roads, railways, irrigation canals, and so on which are declared or set as village boundaries (Handoyo, 2011).

The research respondents were members of the *Wanita Gemari Poklahsar* group of 10 people. The internal characteristics of the respondents including the age, education level, and business experiences can be seen in Table 1.

Table 1. Age, Education Level, and Business Experience of Respondents

Age			*Education Level			Business Experience		
Categories	Standard (years)	amount (respondents)	Categories	Standard	amount (respondents)	categories	Standard (years)	amount (respondents)
Young	≤ 39	2	low	≤ 2	4	new	≤ 2	3
Middle	39 > X < 48	5	middle	2 > X ≤ 3	5	middle	2 > X ≤ 4	6
Old	> 48	3	high	> 3	1	long	> 4	1
Amount		10	Amount		10	Amount		10

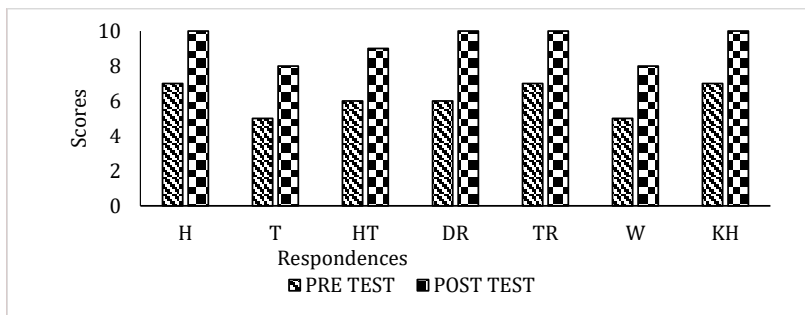
\*Education level: 0 = No education; 1= primary school; 2 = Junior high school; 3 = Senior High School; 4= undergraduate; 5= post graduate; 6= Doctoral

#### 3.2 Counseling on ~~Diversification-diversification~~ of ~~Processed-processed~~ Fishfish

Counseling with diversified fish processing materials aims to improve the knowledge, attitudes and skills of the target in making innovations made from fish, namely amplang crackers. The material given is emphasized on; (1) how to file fish, (2) maintain freshness of fish by using ice during processing (3) apply good production methods by applying cleanliness of tools, materials, and self (4) procedure for making amplang crackers. In the extension activities with the diversification of processed fish material, pre-test and post-test were carried out to measure changes in the level of knowledge and attitudes of respondents. The results of the pre-test and post-test are shown in **Figure 1**.

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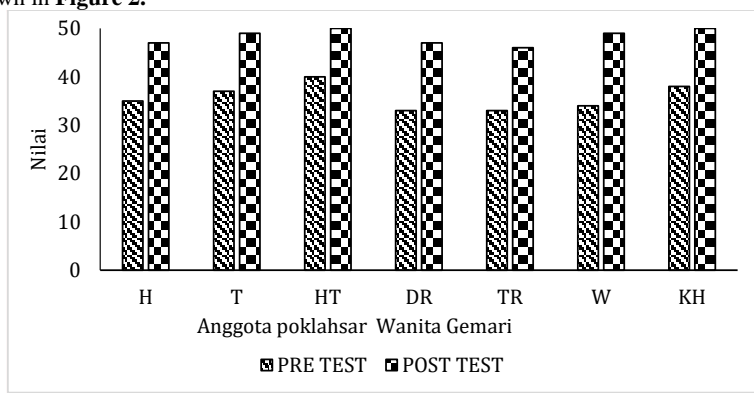
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**Figure 1.** Evaluation of changes in respondent's knowledge.  
(H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

The data were analyzed by using the paired T test or the comparison/difference test of two paired data. The average result of the pre-test score is 6.14 and the average post-test score is 9.29. The number of respondents as many as 7 people. There is a significant average difference of 3.15 points.

The results of the paired samples test obtained the value of sig. (2-tailed) of 0.000 < 0.05. This value states that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from the extension on demonstrations of how to make *amplang* crackers. Meanwhile, to measure the attitude aspect of the main actors, it is shown in **Figure 2**.



**Figure 2.** The results of the evaluation of the attitude aspect  
(H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

The data from the evaluation on the attitude aspect were then analyzed using a paired T-test or a-the comparison/difference test of two paired data. The average result of the pre-test score is 35.71 and the average post-test score is 48.29. there is a significant average difference between the results of the pre-test and post-test, which is 12.58 points. This shows that there is an increase in the attitude aspect of the respondents. Paired samples test was carried out to determine the effect of counseling action activities on increasing respondents' attitudes.

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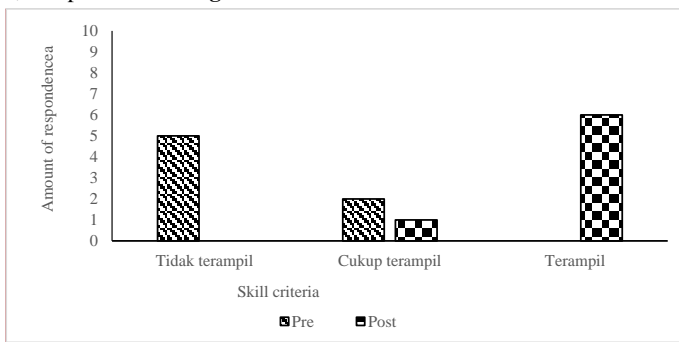
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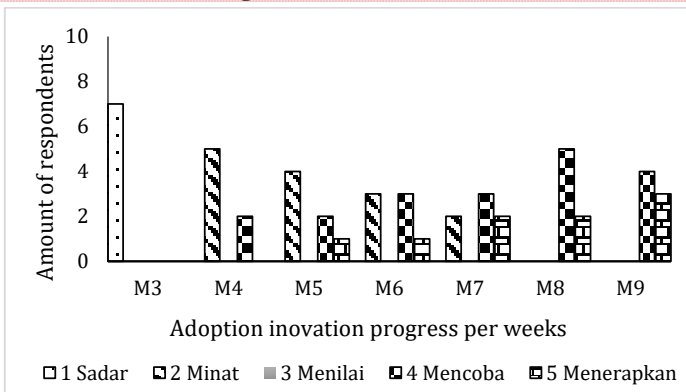
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Paired samples test on the value of sig. (2-tailed) of  $0.000 < 0.05$ , indicating that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from outreach activities regarding demonstrations on how to make amplang crackers. Changes as a result of the learning process can be shown in various forms such as changing knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15]. Furthermore, for the recapitulation results of the evaluation of the diversification skills aspect of processed fish at the Wanita Gemari Poklashsar, it is presented in **Figure 3**.



**Figure 3.** The results of the evaluation of the skills aspect

The evaluation of innovation adoption was carried out by observing respondents through whatsapp online media because of conditions that did not allow to observe directly the level of acceptance and application of respondents to the material or innovations that had been submitted regarding the application of making amplang crackers. Data on the adoption of ~~respondents'~~ ~~respondent's~~ innovations for counseling demonstrations on how to make ~~amplang~~ crackers are shown in **Figure 4**.



**Figure 4.** Adoption of processed fish diversification innovation (M1= week 1; M3 = week 3; M4=week 4; M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

### 3.3 Results of ~~Marketing marketing Strategy strategy~~ ~~Counseling counseling~~ through ~~Packaging packaging Design design~~

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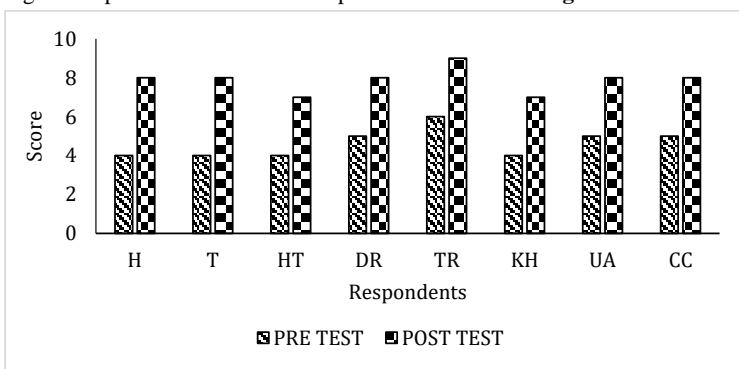
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Counseling on marketing strategies through packaging design aims to increase knowledge, attitudes, and adoption innovation towards packaging of processed products produced by the Poklahsar Wanita Gemari; [18] argues that marketers are ultimately responsible for defining the characteristics that differentiate their products and providing clear contrasts between products. So that the product packaging design is able to provide clear and specific information to consumers, and one point of comparison, a purchase has been motivated. Evaluation of counseling using pre-test and post-test to measure the level of knowledge of respondents to the material provided is shown in **Figure 5**.

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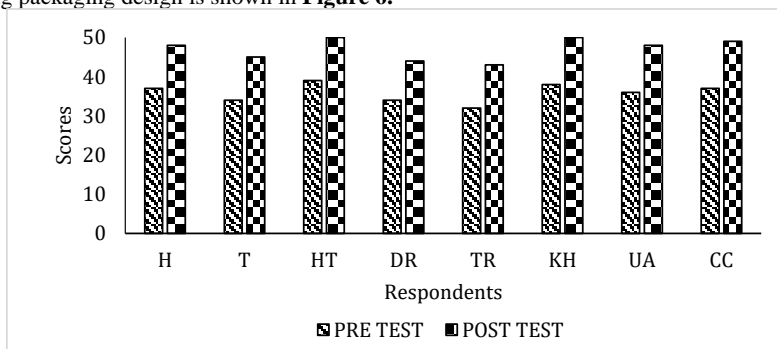


**Figure 5.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

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The results of the evaluation of the knowledge aspect were then analyzed using a paired T test or a comparison/difference test of two paired data. The results of the paired T test analysis. The results of the knowledge evaluation conducted on 8 respondents with an average pre-test score of 4.63 and an average post-test score of 7.88. There is a significant average difference between the results pre-test and post-test. The average difference is equal to 3.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test carried out to determine the effect of extension action activities on increasing respondents's knowledge.

Evaluation of the attitude aspect of respondents/main actors towards counseling regarding packaging design is shown in **Figure 6**.

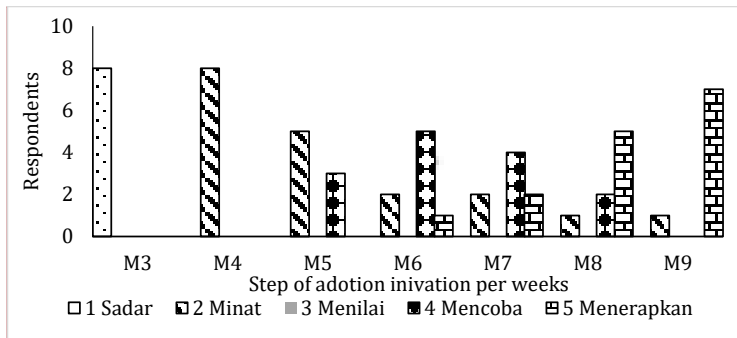


**Figure 6.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

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Attitude is a way of reacting to a stimulus that comes from the surroundings, either from people, objects, or situations that affect it [16]. Based on the graph in **Figure 6**, the attitude aspect of respondents in counseling about marketing strategies through packaging design has increased significantly. The data from the evaluation of the attitude aspect was then analyzed using a paired T test or a comparison ~~difference~~ test of two paired data. Paired samples test determined the extension activities effect on increasing respondents's attitudes.

Evaluation of innovation adoption ~~is-was~~ carried out by observing respondents through whatsapp online media, namely observing the level of acceptance and application of respondents to the innovation material that has been submitted regarding the application of the use of packaging label designs. Data on the adoption of respondent's innovations for counseling about packaging label design is shown in **Figure 7**.



**Figure 7.** Adoption of innovations on counseling on packaging design ( M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

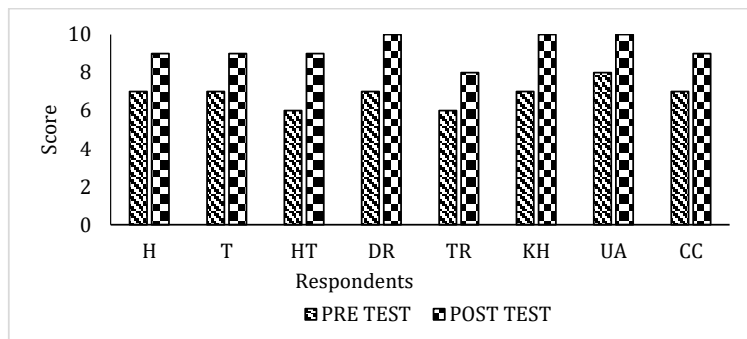
Based on **Figure 7**, there is an increase in the adoption stage every week. In the 3<sup>rd</sup> week the respondents were in the conscious stage. In the 4<sup>th</sup> week there were respondents who had reached the interest stage. In the 5<sup>th</sup> week there were respondents already at the stage of trying to identify the processed product so that information about the product could be listed on the packaging label in accordance with the requirements that must be listed on the packaging label. In weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities.

### 3.4 Results of Online-online Marketing-marketing Counselingcounseling

Evaluation of the results of the extension is used to measure the level of knowledge and attitudes of respondents to the material provided. Knowledge gained through his perception of the stimulus by using the senses. The result of perception in the form of information will be stored in the memory system to be processed and given meaning, then the information is used (retrieved) when needed [21]. The results of the evaluation of counseling about online marketing on the knowledge aspect of the respondents are shown in **Figure 8**

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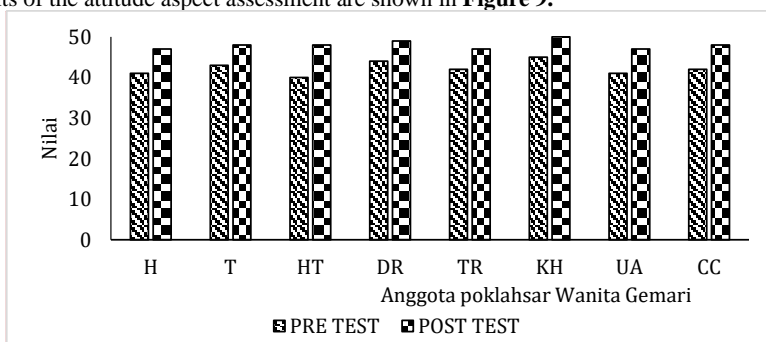




**Figure 8.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklaksar*)

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Based on **Figure 8**, there was a significant increase in the knowledge aspect of the extension activities carried out. The results of the evaluation of the knowledge aspect were analyzed using a paired T test or a comparison/difference test of two paired data. The average result of the evaluation of the knowledge of 8 respondents in Figure 8, shows a pre-test score of 6.88, and the post-test score of 9.25. That was concluded that there is a significant average difference is equal to 2.37 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test was conducted to determine the effect of extension action activities on increasing respondents's knowledge. Furthermore, the results of the attitude aspect assessment are shown in **Figure 9**.

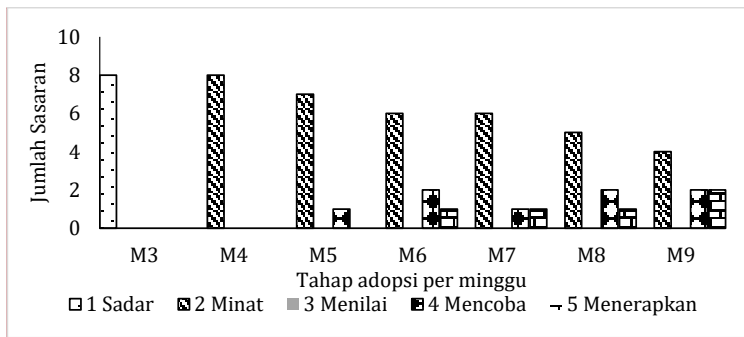


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**Figure 9.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklaksar*)

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The results of the attitude evaluation scores of 9 respondents are the pre-test average scores of 42.25 and the post-test average value of 48.00. It can be concluded that there is a significant difference between the pre-test and post-test scores to 6.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents (main actors). Paired samples test was to determine extension activities effects on increasing respondents's knowledge. Evaluation of respondents's adoption of innovation on online marketing counseling is shown in **Figure 10**.



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**Figure 10.** Adoption of Innovation towards online marketing counseling  
M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

**Figure 10** shows that ~~that~~ there is an increase in the adoption stage per week. In the 3<sup>rd</sup> week the respondents were at the conscious stage, in the 4<sup>th</sup> week there were already respondents who reached the interest stage. In week 5 there are respondents who are already in the trying stage, in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities.

## 4. Discussion

### 4.1 Characteristics of respondents

The characteristics of respondent ~~based on Table 1, it can be seen at Table 1. From that of the 10-ten targets of~~ people, there are two people included in the young age category, five people in the middle age category and three people in the old age category. The working population is the population aged 15 years and over. The population included in the productive age is the population in the age range of 15-65 years. Populations who are not included in the productive age category are people aged < 15 years, and aged > 65 years [10]. Based on observations in the field, the total respondents are included in the category of productive age with the age range of respondents ~~ranging~~ from 39 to 48 years.

The education level of the respondents ~~is consists of three groups namely~~ four people who are included in the category of low education, five people are included in medium education, and one person is included in higher education. Factors that influence learning success include individual age, talent, learning capacity, learning objectives, level of aspirations, understanding of what will be learned and knowledge of success and failure [11].

There are three respondents' ~~s~~ business experiences in the new category, six in the medium category, and one in the old category. The length of the business opening can affect the level of income and the length of the business will affect its productivity (ability/skills). The longer the work experience, the more understanding consumer tastes or behavior will be [12].

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### 4.2 Counseling on ~~Diversification-diversification of Processed-processed Fishfish~~

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its linking of each other.

There was an increase in understanding of the knowledge aspect of the respondents as shows in **Figure 1**. Counseling on the diversification of processed fish uses the demonstration method with the aim that the counseling material can be absorbed by the target optimally because it can be understood through the senses of hearing, the senses of sight, and the active participation of respondents with direct practice. Counseling will increase the knowledge of respondents because it is supported by media that support the counseling process. This is in accordance with the statement [13], that the learning process will run effectively and efficiently if it is supported by supporting media. Participants will be more stimulated if media or facilities are provided that support the interaction process. Paired samples test ~~has-had~~ been carried out to determine the effect of extension action activities on increasing respondents's knowledge.

Based on **Figure 2**, there was an increase in the attitude aspect of respondents in outreach activities about fish processing diversification. There are three important variables in the formation of attitudes, namely attention, understanding and acceptance, which in its implementation go through several stages. The first stage is that the stimulus delivered will be answered by paying attention to the content of the stimulus. The second stage occurs a process of understanding the concept that is made, but if the concept is not understood then the second stage cannot be achieved. The third stage is a reaction in the form of action, namely a change in attitude, this means that the stimulus ~~has-had~~ been received through the process of attention, understanding, in the components of cognition and affection [14].

**Figure 3** shows that the demonstration activity of how to make *amplang* crackers improved the skills of the respondents. It can be seen that before the extension action was carried out there were 5 respondents who were unskilled and 2 respondents were quite skilled, and there was an increase in the skills of the respondents after the extension action was carried out, namely 1 person who was quite skilled and 6 skilled.

The performance of students in demonstrating their skills in doing something can be measured through observation techniques [16]. Counseling ~~is-had been~~ carried out using direct practical methods supported by other media such as print media in the form of leaflets, broadcast media and direct media, which are expected to improve skills and can independently demonstrate the material that has been given and can process various kinds of processed fish independently. This agrees with the statement [13] that a person's knowledge is received through the senses, the most channeling knowledge into the brain is the sense of sight, approximately 75% to 87% of human knowledge is obtained ~~transmitted~~ through the sense of sight, 13% through the sense of hearing and another 12% is channeled through the other senses.

Based on the data in **Figure 4**, there was an increase in the adoption stage, in the 1st week respondents were aware of the importance of diversifying processed fish innovations, in the 4th week there were respondents who were interested and tried to process *amplang* crackers, while in the 5th to 9th week they had there are respondents who apply the material to demonstration activities on how to use *amplang* crackers in their business/business activities. This is because of the enthusiasm of the respondents with the processed diversification material provided, the material was well received and there was good feedback from the demonstration activity on how to make this *amplang* cracker. The success of an education is influenced by strategies and methods as well as learning aids used in the educational process, for that it needs to be designed effectively [17].

### **3.3 Marketing Strategy\_strategy Counseling\_counseling through Packaging packaging Designdesign**

The evaluation of the knowledge aspect of marketing strategy counseling through packaging design in **Figure 5**, was analyzed by the paired samples test returns the value of

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sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test and post-test. That means there is an influence from the counseling action activities on packaging design that are carried out, to influence early recipients, it does not require persuasion because they themselves are always trying to find something that can provide benefits in social or economic life [19].

**Figure 6** was show the attitude evaluation carried out on 8 respondents, was result an average pre-test score of 35.88 and an average post-test score of 47.13. It was a significant difference between the pre-test and post-test score, that is equal to 11.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. This agrees with [20] which states that without a change in attitude, increasing knowledge and improving skills in training participants, the program can be said to be a failure. Paired samples test was to determine the extension activities effect on increasing respondents's knowledge.

The paired samples test results the value of sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test and post-test. It means that there is an influence from the extension action activities on packaging design. Change is a form of the result of the learning process. These changes can be shown in various forms such as increased knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15].

**Figure 7** shows in weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities. Respondents are aware of the importance of packaging for their products because packaging will give an impression to consumers. The enthusiasm of respondents to change the packaging to be more attractive and informative increased through this outreach activity. This is in line with the statement [4] that packaging is one of the strategies used by companies to make products more attractive in terms of shape, color, product quality can be maintained. Currently, many companies are aware of creating attractive product packaging. This is because the company uses the package at the same time for promotion.

### 3.4 Results of Online-online Marketing-marketing Counselingcounseling

**Figure 8** shows that the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference the pre-test and post-test. It means that there is an influence from the extension activities on packaging design. Counseling is one way that can be done to increase knowledge/information for the community. Face-to-face counseling and providing information directly is expected to be more effective than counseling through mass media or leaflets [22].

**Figure 9** shows that the results of the paired samples test was the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference between the pre-test and post-test scores. It means that there is an effect of counseling action activities on online marketing, while measuring the attitude aspect of respondents/actors main. The significance value (2-tailed)  $< 0.05$  indicates a significant difference between the initial and final variables. This shows that there is a significant effect on the difference in the treatment given to each variable [23].

**Figure 10** shows in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities. The respondent's obstacle in the adoption stage of online marketing is that most of the respondents do not own a mobile phone personally, so it is difficult to understand how to use internet facilities, but the target realizes that online marketing is very supportive in product promotion in a wide range. This is in line with the statement that online marketing has several advantages, namely, a wider reach, saving time,

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effort, and costs, easier processes, ease of supervision, ease of managing inventory control and without space limits [24].

## 5. Conclusion

Counseling using the method of demonstration carried out to groups of [the](#) *Wanita Gemari Poklahsar* who enjoy fish processing diversification, marketing strategies for fishery products through packaging design and online marketing can improve the attitudes, knowledge and skills of respondents. Counseling is important for the main fishery actors to increase their self-capacity which in turn has an impact on their income and welfare.

There is a need for support and guidance by local extension workers in providing information on technological innovations and fish processing diversification innovations so that group business activities continue to develop. The need for assistance to groups regarding the application of technology that is needed to support product marketing with an online system.

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**Trs: Letter of Acceptance to be published to E3S WoC [ISFFS]**

2 pesan

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**Nayu Nurmalia** <nayunurmalia@yahoo.com>  
Balas Ke: Nayu Nurmalia <nayunurmalia@yahoo.com>  
Kepada: Tatty Yuniarti <tatty.yuni@gmail.com>

4 November 2021 pukul 02.33

Dikirim dari Yahoo Mail di Android

----- Pesan yang Diteruskan -----

**Dari:** "ISFFS Committee Secretariat" <isffs.mii@gmail.com>

**Kepada:** "Nayu Nurmalia" <nayunurmalia@yahoo.com>

**Cc:**

**Terkirim:** Min, 31 Okt 2021 pada 8:00

**Judul:** Letter of Acceptance to be published to E3S WoC [ISFFS]

Dear Authors,

Greetings from ISFFS 2021!

We notified that your article has been accepted and will be proceeded for publication online on the E3S Web of Conferences (<https://www.e3s-conferences.org/>). We congratulate you on your achievements. The information about the status of your article was provided in the attachment, while the technical details of the publication will be informed later.

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Sincerely,

ISFFS 2021 Organizing Committee

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# Community Empowerment through Processed Diversification and Marketing Strategy of the *Wanita Gemari Polkahsar* in Pemalang District

**Abstract.** Pemalang is one of the sub-districts in Pemalang district which has considerable fishery potential. One area of business is the processing of fisheries. Products in each group vary, such a fish thrown, salted fish, fish cake, and fish chips. The identification of the problem hasn't added to the variety of fisheries processing products, packaging is less interesting. The purpose of research is to increase knowledge, skill, and attitude through outsourcing activities about product diversification and the marketing strategy. Research was carried out on 2<sup>nd</sup> March – 15 Mei 2020. Counseling methods with group meetings, demonstrations of tutorials, lecture, and group discussion with the aim of *Wanita Gemari Poklahsar*. Counseling activities include (1) diversification of processed fish, (2) marketing strategy through packaging designs, and (3) counseling about online marketing. The T test conducted with SPSS shows a significant value of 0,000 which indicates that the counseling activities have a significant effect on improving the aspects of respondents' knowledge, skills and attitudes.

*Keywords: Processing fishery products, fishery, aspect of attitude, knowledge, and skill*

## 1 Introduction

Pemalang is one of the sub-districts in Pemalang regency that has considerable fishery potential. The area of Pemalang subdistrict is 10,193 ha and consists of 20 villages and villages bordering the Java Sea in the north, Randudongkal and Bantarbolang subdistricts to the south, Tegal Regency to the west and Taman Subdistrict to the east [1]. The potential of developing fisheries is the field of fishery processing business conducted by fishery processing groups.

Pemalang sub-district has 54 fishery households (*RTP*) that strive in the field of fish processing. The *RTP* is divided into seven processing groups. The types of processed fish produced in general do not vary. Processed fish products include fish crackers, *pindang* and salted fish [2]. The result of the identification of processing group problems in this preliminary study is the limited variety of processed fish products caused by the fishery households is the limited variety of processed fish products. The cause of the problem was by the fishery households didn't not yet know the variation of fishery processing products. The ability to make varied products through the right technology can be used to increase the income of the fishery households [3].

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by the fishery households didn't not yet know the variation of fishery processing products. The ability to make varied products through the right technology can be used to increase the income of the fishery households [3].

Another problem is that the way of packaging processed fish products is still simple. This simple packaging causes consumers to be less interested in processed products of fish processing groups in Pemalang district. This results in the selling price of the product to be low. Products with attractive packaging will cause enough sensory stimulation to be noticed and remembered by consumers so that consumers are interested in buying products [4]. Product packaging is very influential on the selling value of products, because packaging is a way to increase the company's profit. Packaging should be made as attractive as possible is expected to attract and attract the attention of consumers. In addition, packaging can also reduce damage to goods and provide ease in the delivery process [5].

Marketing of processed fish products produced by fish processors in Pemalang subdistrict still uses conventional means. The strategy that can be done by small and medium enterprises (SMEs) to increase revenue is to expand the marketing network, maintain quality, and improve sales services and increase cooperation with relevant agencies and other cooperatives to gain access to raw materials [6]. Counseling can improve target insights so that it has the ability to market products produced online through the use of electronic media or the internet. Processed products produced are able to reach a wider market at a low cost, as well as partners have a media promotion of various processed fish products in the form of brochures or leaflets, promotional CDs, and websites. Online marketing impacts the well-being of families targeted at counseling [7]. Research aim was to improve knowledge, skills and attitudes through product diversification and marketing strategies of fish processing groups (Wanita Gemari Poklahsar) in Pemalang district through counseling.

## 2. Materials and methods

The research was conducted on March 2, 2020 to May 15, 2020. The research location is in Pemalang District, Pemalang Regency, Central Java Province. The research location was chosen purposively because it was close to the source of fish raw materials at fish landing site Tanjung Sari and the Fisheries Service of Pemalang Regency. Research respondents are ten members of the processing and marketing group (*Poklahsar*) for Wanita Gemari in Pemalang District.

Data on natural resources and human resources of fisheries obtained from (a) Central Bureau of Statistics (BPS), (b) Office of the Fisheries Office of Pemalang Regency (c) Work Plan of Fishery Extension, and (d) Study of literature and internet. The methods used in this study are group and individual approaches including demonstration of how to diversify processed fish, marketing strategies through packaging design, online marketing. Counseling on diversification of processed fish, marketing strategies through packaging design, and online marketing are conducted at the group chairman's house.

The extension media are folders and booklets that are given to respondents, namely members of the *Wanita Gemari Poklahsar*. The respondents were members of the Wanita Gemari Poklahsar of 10 members. Responses from respondents to determine the increase in knowledge, attitudes and skills of respondents were evaluated using a questionnaire for initial evaluation (pre test) and final evaluation (post test). Data retrieval techniques are conducted with interviews, observations, and documentation. The evaluation result is calculated the value of the change by finding the difference from the initial evaluation or pre test activities and the final evaluation or post test so that the value of the change is obtained.

Evaluation of the impact of counseling includes the stage of adoption of innovation, the details of the evaluation of the stage of innovation adoption is (1) awareness stage, where

the respondent begins to become aware of the innovations offered by the extension worker, (2) interest stage is be marked by her desire to ask or know more about everything related to the innovation suggested by the extension, (3) the assessing stage is the stage carried out by the respondent after considering the benefits obtained when applying the extension material, (4) the trying stage is the respondent tries on a small scale to be more confident in his assessment before applying it to a wider scale, (5) adoption or applying with confidence based on assessments and trials that have been conducted or observed by themselves [8].

Analysis of the data using SPSS version 23 to determine changes in the implementation of counseling on changes in the level of knowledge, skills, and attitudes of the target.

### 3. Results

#### 3.1 Characteristics of respondents

Pemalang District is one of the sub-districts in Pemalang Regency, Central Java Province. The boundaries of the territory are marked with gates and stakes. The types of village boundaries on land can be in the form of natural boundaries or artificial boundaries. Artificial boundaries are man-made elements such as boundary pillars, roads, railways, irrigation canals, and so on which are declared or set as village boundaries (Handoyo, 2011).

The research respondents were members of the *Wanita Gemari Poklahsar* of 10 people. The internal characteristics of the respondents including the age, education level, and business experiences can be seen in Table 1.

Table 1. Age, Education Level, and Business Experience of Respondents

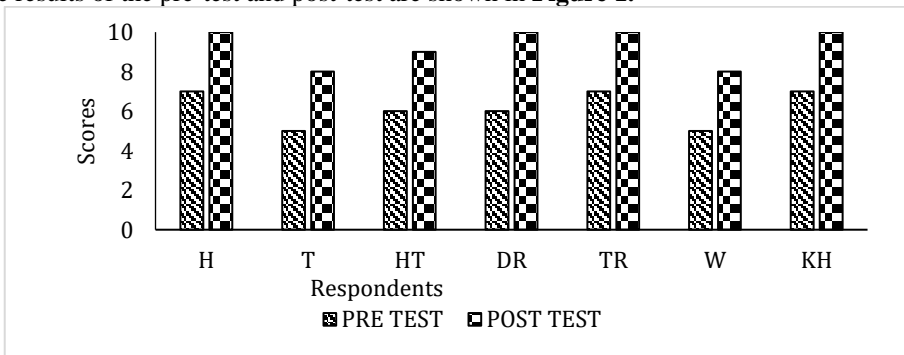
<b>Age</b>		
Categories	Standard (years)	amount (respondents)
Young	$\leq 39$	2
Middle	$39 > X \leq 48$	5
Old	$> 48$	3
Amount		10
<b>*Education Level</b>		
Categories	Standard	amount (respondents)
low	$\leq 2$	4
middle	$2 > X \leq 3$	5
high	$> 3$	1
Amount		10
<b>Business Experience</b>		
Categories	Standard (years)	amount (respondents)
new	$\leq 2$	3
middle	$2 > X \leq 4$	6
long	$> 4$	1

Amount	10
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\*Education level: 0 = No education; 1= primary school; 2 = Junior high school; 3 = Senior High School; 4= undergraduate; 5= post graduate; 6= Doctoral

### 3.2 Counseling on diversification of processed fish

Counseling with diversified fish processing materials aims to improve the knowledge, attitudes and skills of the target in making innovations made from fish, namely amplang crackers. The material given is emphasized on; (1) how to file fish, (2) maintain freshness of fish by using ice during processing (3) apply good production methods by applying cleanliness of tools, materials, and self (4) procedure for making amplang crackers. In the extension activities with the diversification of processed fish material, pre-test and post-test were carried out to measure changes in the level of knowledge and attitudes of respondents. The results of the pre-test and post-test are shown in **Figure 1**.

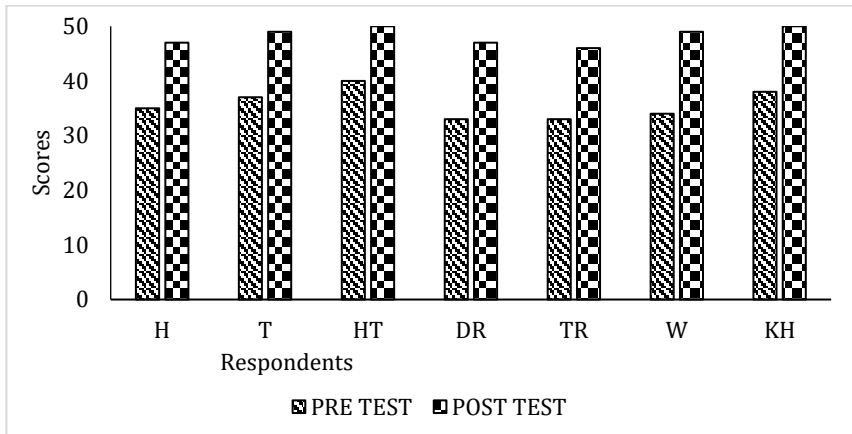


**Figure 1.** Evaluation of changes in respondent's knowledge.

(H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

The data were analyzed by using the paired T test or the comparison test of two paired data. The average result of the pre-test score is 6.14 and the average post-test score is 9.29. The number of respondents as many as 7 people. There is a significant average difference of 3.15 points.

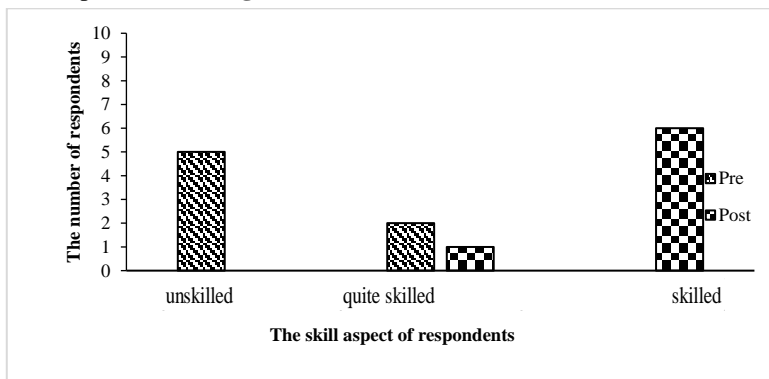
The results of the paired samples test obtained the value of sig. (2-tailed) of  $0.000 < 0.05$ . This value states that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from the extension on demonstrations of how to make *amplang* crackers. Meanwhile, to measure the attitude aspect of the main actors, it is shown in **Figure 2**.



**Figure 2.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

The data from the evaluation on the attitude aspect were then analyzed using a paired T-test or the comparison test of two paired data. The average result of the pre-test score is 35.71 and the average post-test score is 48.29. there is a significant average difference between the results of the pre-test and post-test, which is 12.58 points. This shows that there is an increase in the attitude aspect of the respondents. Paired samples test was carried out to determine the effect of counseling action activities on increasing respondents' attitudes.

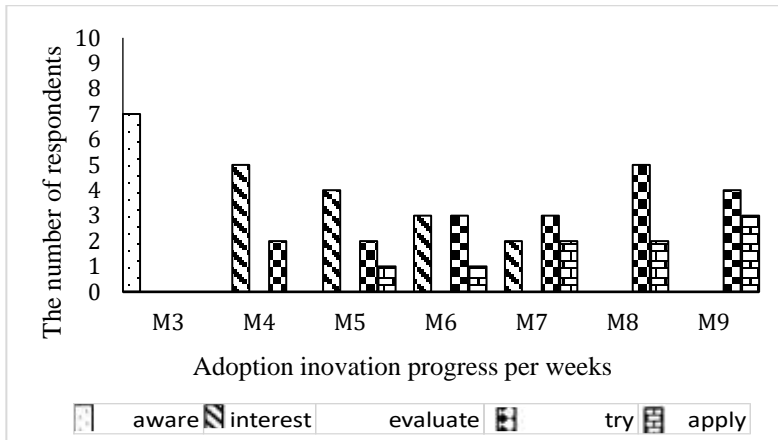
Paired samples test on the value of sig. (2-tailed) of  $0.000 < 0.05$ , indicating that there is a significant difference between the results of the pre-test and post-test. This means that there is an influence from outreach activities regarding demonstrations on how to make amplang crackers. Changes as a result of the learning process can be shown in various forms such as changing knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15]. Furthermore, for the recapitulation results of the evaluation of the diversification skills aspect of processed fish at the *Wanita Gemari Poklahsar*, it is presented in **Figure 3**.



**Figure 3.** The results of the evaluation of the skills aspect

The evaluation of innovation adoption was carried out by observing respondents through whatsapp online media because of conditions that did not allow to observe directly

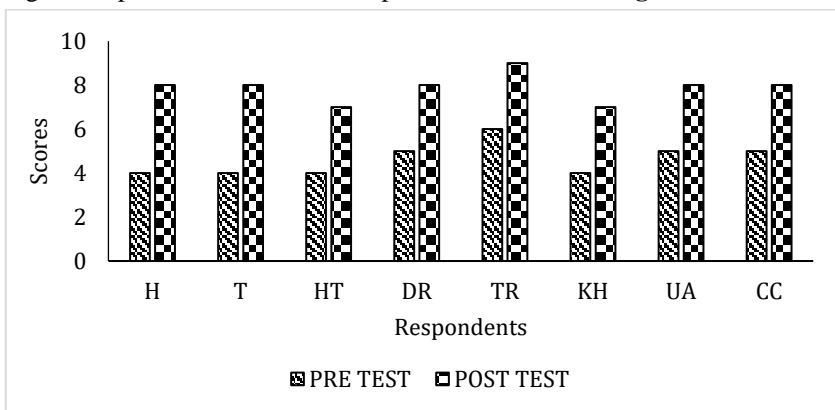
the level of acceptance and application of respondents to the material or innovations that had been submitted regarding the application of making *amplang* crackers. Data on the adoption of respondent's innovations for counseling demonstrations on how to make *amplang* crackers are shown in **Figure 4**.



**Figure 4.** Adoption of processed fish diversification innovation (M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

### 3.3 Results of marketing strategy counseling through packaging design

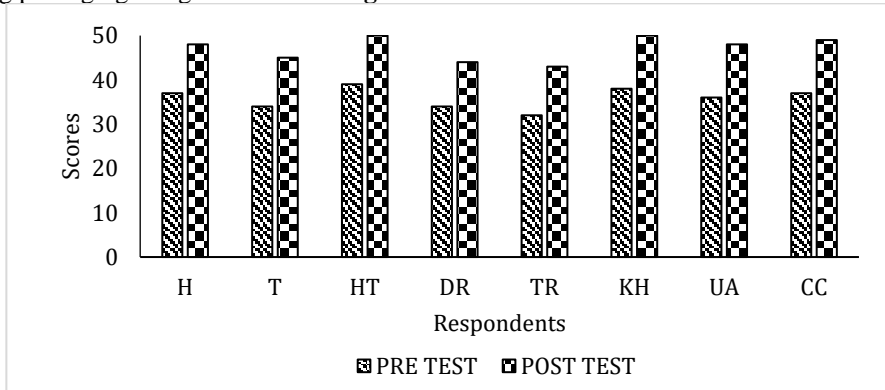
Counseling on marketing strategies through packaging design aims to increase knowledge, attitudes, and adoption innovation towards packaging of processed products produced by the *Wanita Gemari Poklahsar* [18] argues that marketers are ultimately responsible for defining the characteristics that differentiate their products and providing clear contrasts between products. So that the product packaging design is able to provide clear and specific information to consumers, and one point of comparison, a purchase has been motivated. Evaluation of counseling using pre-test and post-test to measure the level of knowledge of respondents to the material provided is shown in **Figure 5**.



**Figure 5.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

The results of the evaluation of the knowledge aspect were then analyzed using a paired T test or a comparison/difference test of two paired data. The results of the paired T test analysis. The results of the knowledge evaluation conducted on 8 respondents with an average pre-test score of 4.63 and an average post-test score of 7.88. There is a significant average difference between the results pre-test and post-test. The average difference is equal to 3.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test carried out to determine the effect of extension action activities on increasing respondents's knowledge.

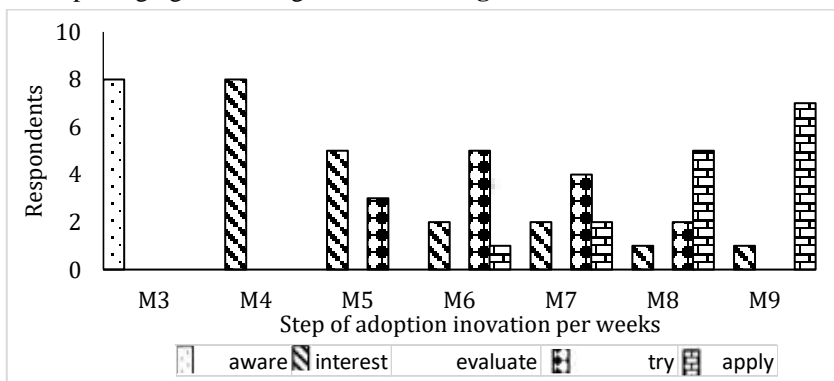
Evaluation of the attitude aspect of respondents/main actors towards counseling regarding packaging design is shown in **Figure 6**.



**Figure 6.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

Attitude is a way of reacting to a stimulus that comes from the surroundings, either from people, objects, or situations that affect it [16]. Based on the graph in **Figure 6**, the attitude aspect of respondents in counseling about marketing strategies through packaging design has increased significantly. The data from the evaluation of the attitude aspect was then analyzed using a paired T test or a comparison test of two paired data. Paired samples test determined the extension activities effect on increasing respondents's attitudes.

Evaluation of innovation adoption was carried out by observing respondents through whatsapp online media, namely observing the level of acceptance and application of respondents to the innovation material that has been submitted regarding the application of the use of packaging label designs. Data on the adoption of respondent's innovations for counseling about packaging label design is shown in **Figure 7**.



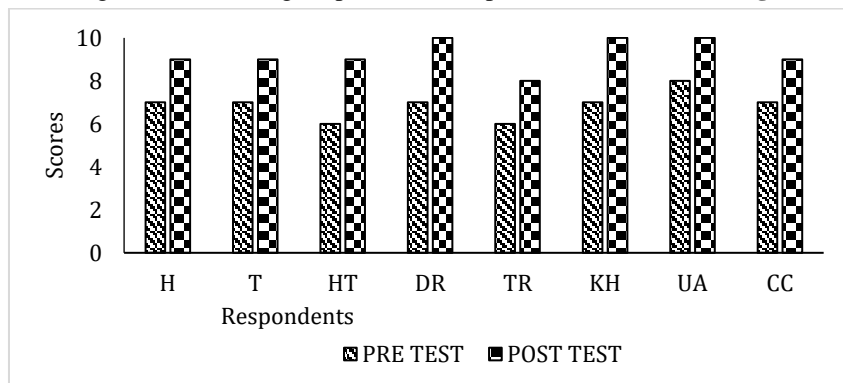


**Figure 7.** Adoption of innovations on counseling on packaging design ( M1= week 1; M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

Based on **Figure 7**, there is an increase in the adoption stage every week. In the 3<sup>rd</sup> week the respondents were in the conscious stage. In the 4<sup>th</sup> week there were respondents who had reached the interest stage. In the 5<sup>th</sup> week there were respondents already at the stage of trying to identify the processed product so that information about the product could be listed on the packaging label in accordance with the requirements that must be listed on the packaging label. In weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities.

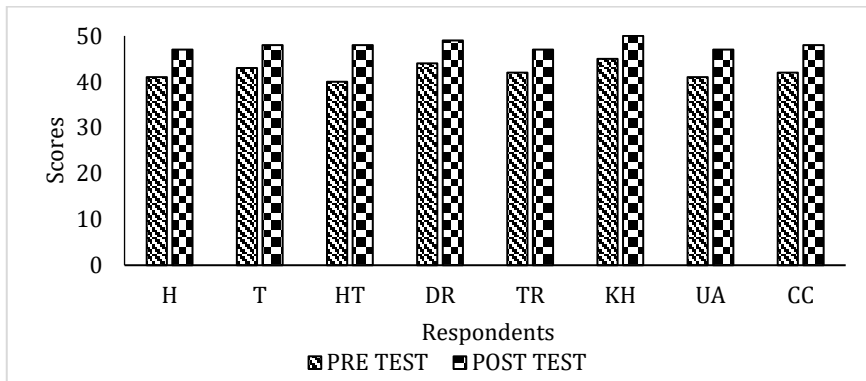
### 3.4 Results of online marketing counseling

Evaluation of the results of the extension is used to measure the level of knowledge and attitudes of respondents to the material provided. Knowledge gained through his perception of the stimulus by using the senses. The result of perception in the form of information will be stored in the memory system to be processed and given meaning, then the information is used (retrieved) when needed [21]. The results of the evaluation of counseling about online marketing on the knowledge aspect of the respondents are shown in **Figure 8**



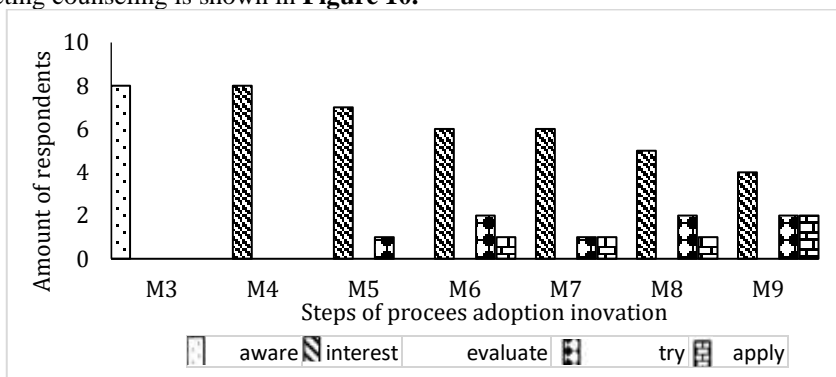
**Figure 8.** The results of the evaluation of the knowledge aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklahsar*)

Based on **Figure 8**, there was a significant increase in the knowledge aspect of the extension activities carried out. The results of the evaluation of the knowledge aspect were analyzed using a paired T test or a comparison test of two paired data. The average result of the evaluation of the knowledge of 8 respondents in Figure 8, shows a pre-test score of 6.88, and the post-test score of 9.25. That was concluded that there is a significant average difference is equal to 2.37 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. Paired samples test was conducted to determine the effect of extension action activities on increasing respondent's knowledge. Furthermore, the results of the attitude aspect assessment are shown in **Figure 9**.



**Figure 9.** The results of the evaluation of the attitude aspect (H, T, HT, DR, TR, KH, UA is a member of the *Wanita Gemari Poklaksar*)

The results of the attitude evaluation scores of 9 respondents are the pre-test average scores of 42.25 and the post-test average value of 48.00. It can be concluded that there is a significant difference between the pre-test and post-test scores to 6.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents (main actors). Paired samples test was to determine extension activities effects on increasing respondents's knowledge. Evaluation of respondents's adoption of innovation on online marketing counseling is shown in **Figure 10**.



**Figure 10.** Adoption of Innovation towards online marketing counseling (M3 = week 3; M4=week 4, M5= week 5; M6= week 6; M7= week 7; M8= week 8; M9= week 9)

**Figure 10** shows that there is an increase in the adoption stage per week. In the 3<sup>rd</sup> week the respondents were at the conscious stage, in the 4<sup>th</sup> week there were already respondents who reached the interest stage. In week 5 there are respondents who are already in the trying stage, in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities.

## 4. Discussion

### 4.1 Characteristics of respondents

The characteristics of respondents can be seen at Table 1. From the ten targets of people, there are two people included in the young age category, five people in the middle age category and three people in the old age category. The working population is the population aged 15 years and over. The population included in the productive age is the population in the age range of 15-65 years. Populations who are not included in the productive age category are people aged < 15 years, and aged > 65 years [10]. Based on observations in the field, the total respondents are included in the category of productive age with the age range of respondents from 39 to 48 years.

The education level of the respondents consists of three groups namely four people who are included in the category of low education, five people are included in medium education, and one person is included in higher education. Factors that influence learning success include individual age, talent, learning capacity, learning objectives, level of aspirations, understanding of what will be learned and knowledge of success and failure [11].

There are three respondents' business experiences in the new category, six in the medium category, and one in the old category. The length of the business experiences can affect the level of income and the length of the business will affect its productivity by ability or skills of businessman. The longer the work experience, the more understanding consumer tastes or behavior will be [12].

### 4.2 Counseling on diversification of processed fish

There was an increase in understanding of the knowledge aspect of the respondents as shown in **Figure 1**. Counseling on the diversification of processed fish uses the demonstration method with the aim that the counseling material can be absorbed by the target optimally because it can be understood through the senses of hearing, the senses of sight, and the active participation of respondents with direct practice. Counseling will increase the knowledge of respondents because it is supported by media that support the counseling process. This is in accordance with the statement [13], that the learning process will run effectively and efficiently if it is supported by supporting media. Participants will be more stimulated if media or facilities are provided that support the interaction process. Paired samples test had been carried out to determine the effect of extension action activities on increasing respondents' knowledge.

Based on **Figure 2**, there was an increase in the attitude aspect of respondents in outreach activities about fish processing diversification. There are three important variables in the formation of attitudes, namely attention, understanding and acceptance, which in its implementation go through several stages. The first stage is that the stimulus delivered will be answered by paying attention to the content of the stimulus. The second stage occurs a process of understanding the concept that is made, but if the concept is not understood then the second stage cannot be achieved. The third stage is a reaction in the form of action, namely a change in attitude, this means that the stimulus had been received through the process of attention, understanding, in the components of cognition and affection [14].

**Figure 3** shows that the demonstration activity of how to make *amplang* crackers improved the skills of the respondents. It can be seen that before the extension action was carried out there were 5 respondents who were unskilled and 2 respondents were quite skilled,

and there was an increase in the skills of the respondents after the extension action was carried out, namely 1 person who was quite skilled and 6 skilled.

The performance of students in demonstrating their skills in doing something can be measured through observation techniques [16]. Counseling had been carried out using direct practical methods supported by other media such as print media in the form of leaflets, broadcast media and direct media, which are expected to improve skills and can independently demonstrate the material that has been given and can process various kinds of processed fish independently. This agrees with the statement [13] that a person's knowledge is received through the senses, the most channeling knowledge into the brain is the sense of sight, approximately 75% to 87% of human knowledge is obtained through the sense of sight, 13% through the sense of hearing and another 12% is channeled through the other senses.

Based on the data in **Figure 4**, there was an increase in the adoption stage, in the 1st week respondents were aware of the importance of diversifying processed fish innovations, in the 4th week there were respondents who were interested and tried to process *amplang* crackers, while in the 5th to 9th week they had there are respondents who apply the material to demonstration activities on how to use *amplang* crackers in their business/business activities. This is because of the enthusiasm of the respondents with the processed diversification material provided, the material was well received and there was good feedback from the demonstration activity on how to make this *amplang* cracker. The success of an education is influenced by strategies and methods as well as learning aids used in the educational process, for that it needs to be designed effectively [17].

### 3.3 Marketing strategy counseling through packaging design

The evaluation of the knowledge aspect of marketing strategy counseling through packaging design in **Figure 5**, was analyzed by the paired samples test returns the value of sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test and post-test. That means there is an influence from the counseling action activities on packaging design that are carried out, to influence early recipients, it does not require persuasion because they themselves are always trying to find something that can provide benefits in social or economic life [19].

**Figure 6** was show the attitude evaluation carried out on 8 respondents, was result an average pre-test score of 35.88 and an average post-test score of 47.13. It was a significant difference between the pre-test and post-test score, that is equal to 11.25 points. This shows that there is an increase in understanding of the knowledge aspect of the respondents. This agrees with [20] which states that without a change in attitude, increasing knowledge and improving skills in training participants, the program can be said to be a failure. Paired samples test was to determine the extension activities effect on increasing respondents's knowledge.

The paired samples test results the value of sig. (2-tailed) of  $0.000 < 0.05$ . It can be interpreted that there is a significant difference in average between the results of the pre-test and post-test. It means that there is an influence from the extension action activities on packaging design. Change is a form of the result of the learning process. These changes can be shown in various forms such as increased knowledge, skills and abilities, reaction power, acceptance power and other aspects that exist in individuals [15].

**Figure 7** shows in weeks 5 to 9 there were already respondents who applied appropriate packaging designs in their business activities. Respondents are aware of the importance of packaging for their products because packaging will give an impression to consumers. The enthusiasm of respondents to change the packaging to be more attractive and

informative increased through this outreach activity. This is in line with the statement [4] that packaging is one of the strategies used by companies to make products more attractive in terms of shape, color, product quality can be maintained. Currently, many companies are aware of creating attractive product packaging. This is because the company uses the package at the same time for promotion.

### 3.4 Online marketing counseling

**Figure 8** shows that the results of the paired samples test, it can be concluded that the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference the pre-test and post-test. It means that there is an influence from the extension activities on packaging design. Counseling is one way that can be done to increase knowledge/information for the community. Face-to-face counseling and providing information directly is expected to be more effective than counseling through mass media or leaflets [22].

**Figure 9** shows that the results of the paired samples test was the value of sig. (2-tailed) of  $0.000 < 0.05$ . There is a significant difference between the pre-test and post-test scores. It means that there is an effect of counseling action activities on online marketing, while measuring the attitude aspect of respondents/actors main. The significance value (2-tailed)  $< 0.05$  indicates a significant difference between the initial and final variables. This shows that there is a significant effect on the difference in the treatment given to each variable [23].

**Figure 10** shows in weeks 7 to 9 there are already respondents who apply appropriate marketing in their business activities. The respondent's obstacle in the adoption stage of online marketing is that most of the respondents do not own a mobile phone personally, so it is difficult to understand how to use internet facilities, but the target realizes that online marketing is very supportive in product promotion in a wide range. This is in line with the statement that online marketing has several advantages, namely, a wider reach, saving time, effort, and costs, easier processes, ease of supervision, ease of managing inventory control and without space limits [24].

## 5. Conclusion

Counseling using the method of demonstration carried out to groups of the *Wanita Gemari Poklahsar* who enjoy fish processing diversification, marketing strategies for fishery products through packaging design and online marketing can improve the attitudes, knowledge and skills of respondents. Counseling is important for the main fishery actors to increase their self-capacity which in turn has an impact on their income and welfare.

There is a need for support and guidance by local extension workers in providing information on technological innovations and fish processing diversification innovations so that group business activities continue to develop. The need for assistance to groups regarding the application of technology that is needed to support product marketing with an online system.

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# INTERNATIONAL SEMINAR ON FISH AND FISHERIES SCIENCES (ISFFS)

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Bogor, October 30<sup>th</sup> 2021

## LETTER OF ACCEPTANCE

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Dear Authors,

On behalf of the ISFFS Proceedings Editors, we are pleased to inform you that your paper entitled "The Potency of Spice Extracts in Fish Skin Collagen Production" written by Nayu Nurmalia, Tatty Yuniarti, Maulidyyane Zidhane has been accepted and will be proceeded to publication in the E3S Journal (e-ISSN: 2267-1242; SCOPUS Indexed).

We congratulate you for your achievement, the technical details about the publication will be informed later. The publication of the accepted paper will be provided by the end of December 2021. We will encourage more quality submissions from you and your colleagues in future.



Sincerely,

A handwritten signature in black ink, appearing to read "Endi Setiadi Kartamihardja".

Prof. Dr. Endi Setiadi Kartamihardja MSc

Editor-in-Chief of ISFFS Proceedings