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# Impact of Vocational Training on Value Addition in Knowledge and Adoption of Rural Women

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**ABSTRACT**

*The present study was conducted by Krishi Vigyan Kendra, Dewas for three years i.e. 2011-12, 2012-13 and 2013-14 with the objective to find out the effectiveness of vocational training programme on knowledge and adoption of value addition of food grains, fruits and vegetables among rural women. The data revealed that just after completion of training, majority (63.33%) of trainees were having high level of knowledge regarding value addition followed by 36.66% respondents having medium level of knowledge. After seven days of training, most (56.66%) of the trainees had medium level of knowledge followed by high level (43.33%), while, none of the trainees had low level of knowledge. The results clearly indicated that vocational training on value addition was effective in enhancing the knowledge and adoption of trainee. Therefore, it could be employed that more and more such training programmes on value addition may be organized which would be benefitted to rural women in particular and farming community in general.*

***Key words:*** *Vocational training, Impact, Value addition, Processing*

## INTRODUCTION

Krishi Vigyan Kendra designs different types of training courses for the farmers / farm women and rural youths. Training is an important aspect of the entrepreneurship development and it is considered as part of strategy for growth and development of an organization. Basically training is intended to help individuals to learn and to bring a desired standard of efficiency, condition and behavior. Thus, it is sustained, coordinated and focused effort to enhance individual's competence for enduring success. Courses are based on the information received through family and village survey. No specific qualification is required to be the participant of the training programme. After conducting the training programmes, follow up programmes are organized for converting the obtained skills of the trainees into practice. While designing the training programmes, the concept of farming system is taken into account to make the enterprises commercially viable. The vocational training programmes take into account all methods and means which will result in skill development in rural women in the areas of their interest.

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India is the third largest producer of food grains after china and USA and second largest producer of fruits and vegetables in world after china but due to poor post harvest facilities, wastages of the food grains, fruits and vegetables was occur to the tune of 30 to 40%. Thus, the primary objectives of processing are aimed at reducing the post-harvest losses and to provide remunerative prices to growers. The national agriculture policy identifies food processing as a major segment and set an objective of increasing the food processing from existing 2% to 10 % and value addition from 7% to 35% by 2013. According to USDA[6], a change in the physical state or form of the product such as milling wheat into flour or making strawberries into jam that enhances its value, which should have unique attribution that goes beyond what is generally found in the conventional market[3]. The fortified products will improve palatability, food processing value and shelf life of the raw materials. It should form a part of the community development programme. Value-added agriculture is fundamentally market-driven. It needs trained and skilled manpower to cope up with the demand of rapidly changing markets. Amanor-Boadu[1] reported that value-added business tend to be closer to the consumers, playing in highly competitive markets where speed and accuracy are imperative, which requires the government support through building institutions, market information, skilled manpower, capital formation and technology. Keeping the importance of value added products, vocational training programme was conducted for the rural women to know the extent of knowledge gained by the rural women in relation to food processing and value addition of food grains, fruits and vegetables.

## MATERIALS AND METHODS

The present study was conducted by the Krishi Vigyan Kendra, Dewas (Madhya Pradesh) with an attempt to know the impact of vocational training on knowledge and adoption level of rural women. Three vocational trainings were organized from 2011-2012 to 2013-14 on fortification and value addition of guava, mango, amla, pea, carrot, soybean and forest products. Twenty rural women from each training programme were selected and total sample for the study was 60. The data were collected with the help of interview schedule. A knowledge test was developed to ascertain the knowledge of the women on traditional food processing practices. The gain in knowledge was operationalized as the difference between the knowledge regarding various aspects of post harvest practices by the respondents before and after the exposure of vocational trainings. Thus, the summation of all scores treated as the knowledge of the respondent at pre-exposure stage. Similarly post-training knowledge score was calculated separately.

Quantification of the data each 'Yes' and ‘Correct' response was given a score of one and 'No' and 'Incorrect' answer a score of zero, Altogether, there were 20 questions and 60 responses included in the test. Therefore, the total possible score that a respondent could obtain would vary from zero to 60. In order to ascertain the impact of training programme on gain in knowledge, paired ‘t’ test was employed. Validity of the present test was obtained through content validity which refers to the representativeness or sampling adequacy of the content of a measuring instrument. The content of the knowledge test were divided from the content analysis of the literature concerned and advice of experts in the related area. Therefore, it was assumed that the scores obtained by administering these tests measured what was intended to measure. The data were analysis for the assessment of Improvement in knowledge and adoption level was calculated using the following standard formula given by Ansari and Chandargi[2].

$$\text{Percentage of Improvement} = \frac{\text{Post training test} - \text{Pre training test}}{\text{Pre training test}} \times 100$$

Selection of samples for drawing the desired sample, a cluster of villages within the radius of 10 km around or nearby Dewas were purposively selected. The scientific procedure for indentication and selection of farm entrepreneurs was adopted and accordingly in all 60 young farm women entrepreneurs were finally selected for participating in the entrepreneurial development training programmes.

## RESULTS AND DISCUSSION

To assess the effects of food processing training the knowledge of the respondents was measured with the help of standardized test at the three period of interval i.e. pre training, immediately after training (post training) and 7 days after the training. A score of one was given for each correct answer. On the basis of score, respondents were classified as high (60% and above), medium (30% to 60%) and low (0% to 30%) level of knowledge.

**Table-1: Pre-training knowledge score of respondents**

| Knowledge Level | No. of respondents (N=60) | Percentage |
|---|---|---|
| Low level (0% to 30%) | 47 | 78.33 |
| Medium level (30% to 60%) | 13 | 21.66 |
| High level (60% and above) | 00 | 00 |

The data presented in Table-1 revealed that the majority (78.33 percent) of the respondents had low level of knowledge about value addition of food grains, fruits and vegetables followed by medium (21.66%), while none of the respondents obtained high level of knowledge score before participating in training programme conducted by the Krishi Vigyan Kendra.

**Table-2:** Post-training knowledge score of respondents

| Knowledge Level | No. of respondents (N=60) | Percentage |
|---|---|---|
| Low level (0% to 30%) | 00 | 00.00 |
| Medium level (30% to 60%) | 22 | 36.66 |
| High level (60% and above) | 38 | 63.33 |

It is clear from Table-2 that after the exposure of training on value addition, majority of the respondents (63.33%) had high level of knowledge score followed by medium level of knowledge score (36.66%) while none of the respondents obtain lower level of knowledge score related to value addition. These results show the importance of training in the change of knowledge and skills of the personal and in turn it helps in adoption of technologies learnt in the training programmes. These findings are in accordance with the study of Singh *et al.*[5].

**Table-3: Knowledge score of respondent after 7 days of training**

| Knowledge Level | No. of respondents (N=60) | Percentage |
|---|---|---|
| Low level (0% to 30%) | 00 | 00.00 |
| Medium level (30% to 60%) | 34 | 56.66 |
| High level (60% and above) | 26 | 43.33 |

The perusal of the data presented in Table-3 clearly shows that after 7 days of training, 56.66 percent of respondents had medium level of knowledge followed by high level (43.33%), while, the none of the respondents obtained low level of knowledge after 7 days of training.

**Table-4: Mean knowledge score of respondents during all the years**

| Year | Pre training (%) | Post training (%) | 7 days after training (%) | Improvement (%) after Pre training and Post training |
|---|---|---|---|---|
| 2011-12 | 9.30 | 32.44 | 30.32 | 248.82 |
| 2012-13 | 11.46 | 41.68 | 40.62 | 263.70 |
| 2013-14 | 15.09 | 32.62 | 32.04 | 116.17 |

The data presented in Table-4 shows the mean knowledge scores of trainees of three batch i.e. 2011-12, 2012-13 and 2013-14 at three stages i.e. pre-training phase, immediately after the training and 7 days after the training. It is clear from the table that immediately after the training, there was sharp increase in the knowledge score. When the trainees were observed after 7 days of training, it was found that during all the year, knowledge level of trainees has been declined slightly as compared to immediately after the training and it was found 30.32%, 40.62% and 30.04% during 2011-12, 2012-13 and 2013-14 respectively. The percentage of improvement of trainees was obtained 248.82, 263.70, and 116.17% during 2011-12, 2012-13 and 2013-14 respectively.

**Table-5: Comparative mean scores of pre-training and post training knowledge of respondents**

| S. No. | Aspects of value addition training programme | Pre training (mean) | Post training (mean) | Difference | 't'-value |
|---|---|---|---|---|---|
| 1. | Raw material available | 1.98 | 4.05 | 2.07 | 15.65** |
| 2. | Traditional & processed food | 1.63 | 3.76 | 2.13 | 16.51** |
| 3. | Record keeping | 1.76 | 4.05 | 2.29 | 18.12** |
| 4. | Preservation technique | 1.06 | 3.86 | 2.26 | 18.75** |
| 5. | Hygiene | 1.68 | 3.85 | 2.17 | 17.49** |
| 6. | Quality control | 1.46 | 3.66 | 2.2 | 20.80** |
| 7. | Food processing machine | 1.28 | 3.58 | 2.3 | 18.87** |
| 8. | Marketing | 1.33 | 3.16 | 1.83 | 14.11 |

**** Significant at 1 per cent level**

In order to ascertain the impact of training programme on gain in knowledge paired 't' test was employed. The pre and post mean knowledge scores of the recipients of the training was calculated and paired 't' value are presented in Table-5.

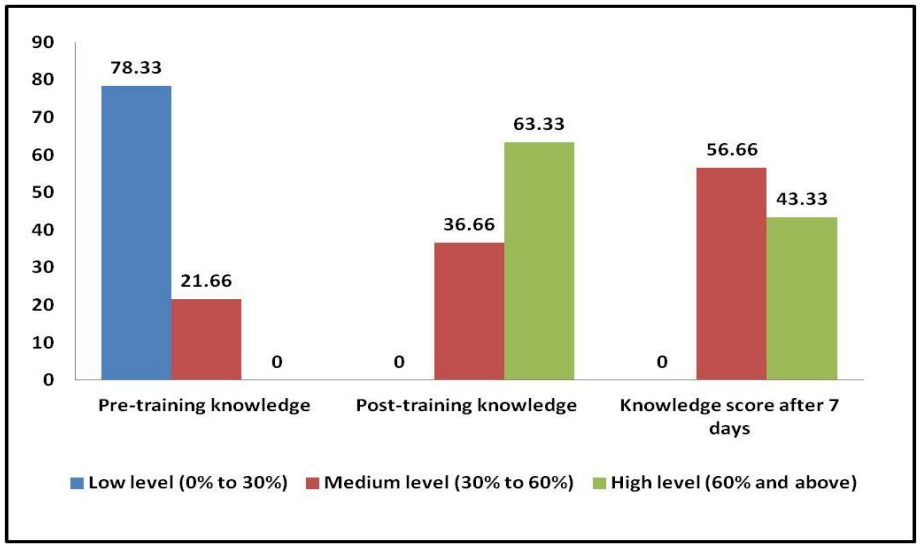


**Fig. 1: Extent of knowledge about value addition**

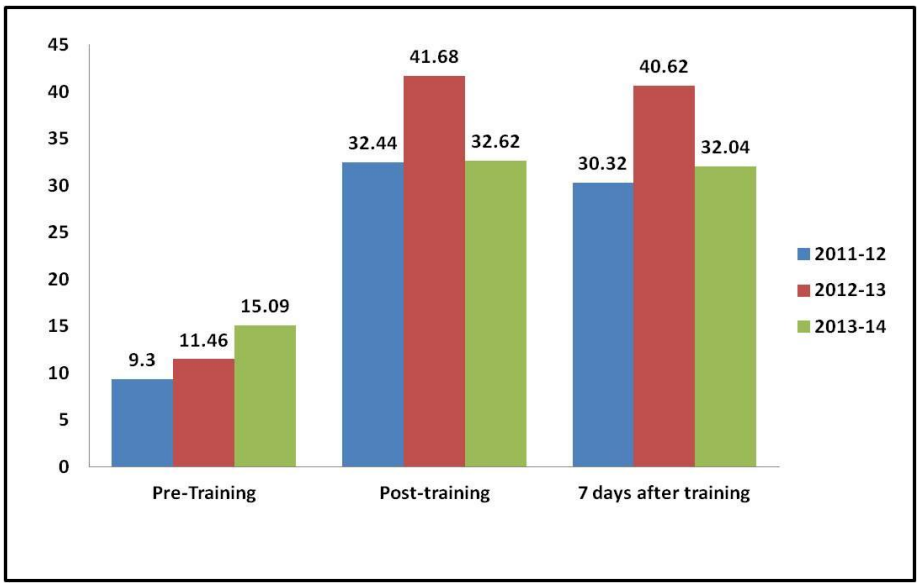


**Fig. 2: Mean knowledge score of respondents during all the years**

Statistically significant differences were found among pre and post training mean score of all the aspects of food processing and value addition training programme. The significant of difference between pre-training and post-training mean score i.e. before and after the training programme confirms the fact that the respondents were able to gain sufficient knowledge at post training programme. The results of this study confirm the findings of Kaur and Sehgal[4].

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