

Evaluation of an Educational Media Package

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ABSTRACT An appropriate media developed for a particular purpose has significant value in motivating people for action and helping them in correct concept formation. With this view in mind, a media package consisting of both printed and electronic media entitled 'Versatile *Neem* for Domestic use' was developed. The present study was undertaken to test the effectiveness of the developed media. Control and experimental groups were formed and pre post test were conducted immediately after the exposure to study the gain in knowledge and after seven and fourteen days to study the retention value. The results proved that the package was effective in terms of gain in knowledge and retention of information and knowledge. Hence, it was concluded that the developed media package was effective to serve the purpose for which it was designed and was recommended for further multiplication and use for dissemination of information /practices.

INTRODUCTION

The dissemination of information and knowledge in today's world can be done through both printed and electronic media. Enough data is available to support the effectiveness of well designed and developed media for transfer of information, knowledge and adoption of practices. Bedi (2002) in her study 'Designing of computer based instructional resource material on pesticides and human health' reported that the media developed proved effective in promoting awareness among users regarding health hazards of pesticides. However, the rigorous process of designing, developing, validation and field evaluation of package is required for it to become an effective package.

In this context, the need was felt to disseminate knowledge regarding the qualities, advantages and uses of *Neem* because it is a virtual gift of nature to mankind. It has multiple properties that have high utility value both at domestic and farm level beside its products being eco-friendly and bio-degradable. Gandhi and Patel (1997) conducted a survey in Andhra Pradesh, Punjab and Gujarat regarding the farmer's awareness about the impact of pesticides and reported it to be limited to the immediate surroundings. Use of alternative methods such as biological methods was practically non-existent and awareness almost none. *Neem* was also reported by Hedge (1996) as well-known plant for its medicinal properties in treating major disorder and diseases such as leprosy, laceration, jaundice, piles, chronic ulcer, diabetes, blood clots and hypertension. It also serves as home remedy for sore

gums, toothache and endoparasites, ringworms, disinfectant and is used as a mouth wash. Apart from reducing dependence on allopathic medicine, *Neem* can also be used as spermicide and oral contraceptive to induce anti-fertility action. These properties and many more make it an effective pesticide.

The media package on the topic 'Versatile *Neem* for Domestic use' was thus designed and developed under the All India Coordinated Research Project on Home Science – Extension Component with the objective of translating the media into vernacular languages and using the same for disseminating information and knowledge on multiple qualities of *Neem* and its uses. The media package consisted of a booklet, slide show and a video film. The developed media were then validated with the help of experts and was found to be highly appropriate on selected characteristics. It was, therefore, recommended for translation and multiplication for extensive use to promote the use of *Neem*. However, before the final multiplication process the components of the package were evaluated for their effectiveness in terms of gain in knowledge.

METHODOLOGY

The media package consisted of both printed and electronic media was tested using a methodological framework adopted for the multi-media package is as follows:

Development of Interview Schedule

An interview schedule was developed which consisted of two sections. One dealt with the

profile of the respondents and the second consisted of a knowledge test based upon the knowledge provided through the media developed which pertained to the following aspects:

- *Qualities of Versatile Neem*
- *Domestic products of Neem*
- *Multiple Uses of Neem*

The test consisted of 30 objective type questions.

Selection of Respondents

Control and experimental group was formed which consisted of thirty women each. These women were selected based upon their ability to read and write Punjabi language.

The control and experimental groups were matched for selected socio- personal characteristics such as age, educational level etc. The groups were matched for socio-personal variables to reduce the impact on the evaluation score.

Intervention

The groups were collected and the purpose of their selection was explained to them. The process of testing is given below in Table 1:

Analysis of data:

The data was analyzed using frequency and percentage. The effectiveness of the package was categorized as low, medium and high as per the score obtained by each of the respondents. The categories thus made were as followed:

Score range of each respondent: 0-30

Minimum score : 2

Maximum score : 27

Categories:

Low : 2-10

Medium: 10-19

High: 19 and above

Mean score was calculated as per the following procedure:

Sum total of the score obtained by respondents ÷ No of respondents.

RESULTS

Socio-personal Characteristics

The Table 2 shows the distribution of respondents according to their socio-economic and personal characteristics. The data show that the groups were matched and hence the chances of these variables having any impact on the evaluation score of the media was negligible.

Evaluation of Educational Media Package

The evaluation conducted through a pre- test immediately before exposure to media package reveals that majority of the respondents in both control and experimental group had low level of awareness and knowledge regarding various aspects of *Neem*.

The actual figures show that 100 percent in control group as compared to 80 percent of respondents in experimental group were in low category .The result of the post test administered to both the groups shows an impressive impact on the knowledge of the group which was exposed to the media as compared to the one which was not exposed. The comparison reveals that 93.33 percent of the respondents in experimental group were placed in high knowledge category as compared to none before the exposure. The remaining 6.66 percent were in medium category. Not much variation was found in the control group where only 3.33 percent respondents moved from low to medium category.

The results of the tests were conducted after seven and fourteen days to determine the retention of knowledge gained from the media exposure on control group does not show any change after seven days but after fourteen days a slight shift was found . In case of experimental

Table1: Intervention sequence

Day	Test no.	Control group	Experimental group
1	Test 1	pre test	pre test
	Test 2	Post test(evaluation of the package) After one hour of pre-test	A video film was shown A printed booklet of given for reading. Post test(evaluation of the package)
7	Test 3	Post test (retention of the package)	Immediately after intervention Post test(retention of the package)
14	Test 4	Post test (retention of the package)	Post test (retention of the package)

Table 2: Distribution of respondents according to their socio-personal characteristics

Attributes	Categories	Control n=30		Experimental n=30	
		Frequency	Percentage	Frequency	Percentage
Age	22-28 yrs.	6	20	6	20
	28-34 yrs.	18	60	19	63.33
	34 yrs.& above	6	20	5	16.66
Educational Level	Primary	6	20	8	26.66
	Matric	18	60	17	56.66
	Graduate	6	20	5	16.66
Family Type	Nuclear	16	53.33	18	60
	Joint	14	46.66	12	40
Family Occupation	Agriculture	27	90	26	86.6
	Business	3	10	4	13.33
Self Occupation	Housewife	30	100	30	100
	Entrepreneur	-	-	0	0.0

group, the shift was noticed in case of one respondent after fourteen days, where the movement was from high to medium category due to decrease in the score.

Even though the results shown in Table 3 prove the effectiveness of the package, the impact can be further highlighted by the mean scores of the tests administered to both control and experimental groups. More of respondents from experimental group were in medium knowledge category as compared to control group but the mean pre test score of experiment group was lower than of that of control group. A minimal increase in mean score of control group (4.33 to 4.36) was observed as compared to a jump from 2.08 mean score before the exposure to 27.0 after the exposure in the experimental group. The mean score of the third and fourth test administered on 14th and 21st day to determine the retention shows a slight fall from 24.5 to 26.22 and 24.4 respectively (Table 4).

DISCUSSION

The data as shown in the two tables clearly indicate that that media had a positive impact on the knowledge of the respondents. Even though some respondents in the control group also moved from low to medium category and a slight increase in mean score was observed but it was insignificant as compared to the increase in the experimental group. The small increase in the score of control group can be attributed to the discussion between the members during the time between the pre and post test and among family and friends during seven and fourteen days. However, the shift of large number of respondents from low to high category and a significant gain

in knowledge in experimental group can only be attributed to the exposure to media with other factors constant in both the groups.

The past studies also support that media designed for instructional or motivational impact prove very effective in achieving the desired results. A study by Neena (1997) on development of instructional message and corresponding educational slides for effective delivery of message on "Food hygiene and sanitation" reported a significant gain in knowledge through synchronized slide-tape instructional sequence. Further, the visual images helped in enhancing knowledge significantly and thus they do have an edge over verbal messages. The results are also in line with those reported by Bedi (2002) regarding the effectiveness of computer generated resource material in promoting awareness.

The retention score clearly indicate that the media had sufficient impact in terms of retaining the knowledge. The majority of the respondents in the experimental group retained the information even after fourteen days implying that the information was clear, sufficient and useful and was conveyed in a manner that it was retained. This proves the effectiveness of an appropriate, well designed and developed media.

CONCLUSION

Media development is a time consuming and laborious task. However, a well-designed and developed media can effectively serve the purpose of mass dissemination of information in a way that it motivates the receiver to accept and retain the information/practices thus leading to adoption. The media package designed and developed for the purpose of disseminating

Table 3: Distribution of respondents according to gain in knowledge and its retention. (n=60)

Categories	Control group						Experimental group									
	Pre test (Test 1)			Post test (Test 2)			Pre test			Post test			Retention			
	N	%		N	%		N	%		N	%		N	%		
Low (2-10)	30	100.0	29	96.66	25	83.33	24	80.0	-	-	-	-	-	-	-	
Medium (10-19)	0	0	1	30.33	5	16.66	6	20.0	2	6.66	2	6.66	2	6.66	3	10.00
High 19 & above	-	-	-	-	-	-	-	-	2.8	93.33	2.8	93.33	2.8	93.33	2.7	90.00

Table 4: Mean evaluation and retention score.

Categories	Mean score			
	Pre test -1	Post test- 2 (Immediately after)	Post test -3 After 7 days	Post test -4 After 14 days
Control group	4.33	4.36	4.68	4.74
Experimental group	2.08	27.0	24.50	24.48

knowledge regarding the versatility of *Neem* proved to be effective both in terms of gain in knowledge and its retention.

RECOMMENDATIONS

The developed media can be multiplied and used extensively for dissemination of information/practices related to versatility of *Neem* and its uses. Its utility can be further enhanced through translation into different regional languages for wider use by extension workers for educating rural men and women in different parts of the country. As the procedure followed in this case has been standardized, the same can be followed for developing media packages on other practices which need to be disseminated

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