Effectiveness of e-Booklet in Terms of Gain in Knowledge

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ABSTRACT

Dairy cooperative societies will operate as vibrant local business enterprises serving their members' needs effectively and economically. For transfer of information, communication is very necessary because the communication revolution has brought in a tremendous transformation. Sixty literate women members of dairy cooperative societies were selected randomly for the effectiveness of e-booklet on dairy farming from Hanumangarh and Sriganganagar district of Rajasthan. Findings shows that majority of the respondents (70%) had medium knowledge with (MPS 50.02) followed by low level of knowledge category (18.33%) with (MPS 29.09) and high level knowledge category (11.67%) with (MPS 75.03) in pre-test. In Post-test majority of the respondents (56.67%) had medium knowledge with (MPS 53.56) followed by high level of knowledge category (40%) with (MPS 77.41) and low level of knowledge category (3.33%) with (MPS 31.05). Majority of the respondents (57%) were in category of medium level of knowledge gain with (MPS 19.41) followed by low knowledge gain category (23.33%) with (MPS 12.33) and high knowledge gain (20%) with (MPS 28.42)). Occupation, land holding, family type, monthly income, milk production and milk sale had positive and significant relationship with knowledge gain at one and five per cent level.

Key words: *Effectiveness; e-Booklet; Gain in knowledge; Dairy cooperative societies.*

The women dairy cooperative societies have opened wide horizons for women fair price of milk, availability of fodder, knowledge about checking fat, dairy visits, participation in meetings, availability of bonus, small credit facility and veterinary services are some of the tangible benefits reported by the women. In order to encourage the women members to contribute more to the dairy sector they are called upon to organize women milk producers' cooperative societies in their respective areas. For transfer of information, communication is very necessary because the communication revolution has brought in a tremendous transformation both in the the structure and function of society. Hence, the present study was conducted to find out the knowledge gain by the respondents towards dairy farming practices.

METHODOLOGY

The study was conducted in Hanumangarh and Sriganganagar districts of Rajasthan. For the effectiveness of e-booklet, a list of literate women members (who can read and write) was prepared from each society. Six societies were selected randomly on the basis of literacy level and 10 respondents from each society were selected randomly. Those who were willing to respond and was approachable to the investigator. Thus, total 60 respondents were selected

e-booklet and Phase-III Post-test after exposure of e-booklet.

FINDINGS

Effectiveness of e-booklet was assessed in terms of gain in knowledge. In this section the attempt has been made to find out the effectiveness of developed e-booklet in terms of knowledge gained by the respondents. The developed e-booklet was exposed to the respondents. Post-test was conducted after fifteen days of the e-booklet exposure. The result has been presented under the following heads.

Overall knowledge level of the respondents in pre-test : This section describes the existing preliminary level of knowledge of the respondents regarding selected aspects of dairy farming before exposure of e-booklet .An interview schedule was developed to test the pre knowledge and adoption level of the respondents individually and their responses were recorded.

Table 1 shows that the highest score obtained by the respondents was 56 and lowest score was 22 with knowledge range of 34 having co-efficient range of 0. 435. Standard deviation of knowledge check in pre test was 15.3 and co-efficient of variation was found to be 43.58. On the basis of standard deviation knowledge check was categorized into high, medium and low.

Table 1
Score range of knowledge and standard deviation in pre-test (N=60)

Range of knowledge	Co-efficient of range	Average score	Standard deviation of knowledge check	Co-efficient of variation (%)
22-56 (34)	0.435	35.1	15.3	43.58

for the effectiveness of e-booklet on dairy farming. The study was conducted in three phases: Phase-I Pre-test before exposure of e-booklet, Phase-II Exposure of

Data presented in the Table 2 revealed that in pre test majority of the respondents (70.00%) had medium knowledge with mean per cent score of 50.02 whereas

Table 2
Distribution of respondents by overall knowledge and mean per cent score
of each category in pre test (N=60)

Knowledge with score range	Frequency (n)	Percentage (%)	Mean percent score
Low (0-32)	11	18.33	29.09
Medium (33-64)	42	70.00	50.02
High (65-95)	07	11.67	75.03

respondents having low level of knowledge was 18.33 per cent with mean per cent score of 29.09 and only 11.67 per cent respondents were having high level of knowledge with mean per cent score of 75.03. This shows that most of the respondents had the medium level of knowledge in pre test.

Overall knowledge level of the respondents in post-test : This section describes the knowledge level of respondents after the exposure of developed training package by investigator.

31.05.

Knowledge gained by respondents (between pre and post test)

This section describes the differential knowledge gain by the respondents and average score gained along with the coefficient of variation after exposure of developed e-booklet.

Table 3
Score range of knowledge and standard deviation in post-test (N=60)

Range of knowledge	Co-efficient of range	Average score	Standard deviation of knowledge test	Co-efficient of variation (%)
35-89 (54)	0.43	43.25	9.03	20.87

Same knowledge test was used to test the knowledge after the exposure of e-booklet individually and their responses were recorded. Data show in the Table 3 indicates that in post test highest score obtained by the respondents was 89 and lowest score was 35 with a range of 54 and co efficient of range 0.43. Standard deviation of knowledge test in post test was 9.03 and coefficient of variation was found to be 20.87. On the basis of equal distribution of maximum scores knowledge test was categorized into high, medium and low.

The data presented in Table 5 revealed that the highest score obtained by respondents was 35 and lowest was 10 with a range of 25 and coefficient of range was 0.55 Standard deviation of knowledge check was found to be 5.84 and coefficient of variation was 26.72 per cent. On the basis of equal distribution of maximum scores knowledge gain was categorized into three categories i.e. high, medium and low.

Table 6 indicated that according to the pre and post test score differences majority of the respondents (57%) had medium knowledge gain with

Table 4
Distribution of respondents by overall knowledge and mean per cent score
of each category in post-test (N=60)

Knowledge with score range	Frequency (n)	Percentage (%)	Mean percent score
Low (0-32)	2	3.33	31.05
Medium (33-64)	34	56.67	53.56
High (65-95)	24	40	77.41

Data presented in the Table 4 revealed that in post test majority of the respondents (56.67%) had medium knowledge with mean per cent score of 53.56 while respondents in high level of knowledge were 40 percent with mean per cent score of 77.41.

Only 3.33 per cent respondents were found in low level of knowledge with mean per cent score of

mean per cent score of 19.41 whereas respondents having low level of knowledge gain (23.33%) with mean per cent score of 12.33 and respondents were having high level of knowledge gain were only 20 per cent with mean per cent score of 28.42.

Table 5
Score range of knowledge and standard deviation (gain in knowledge) (N=60)

Range of knowledge	Co-efficient of range	Average score	Standard deviation of knowledge check	Co-efficient of variation (%)
10-35 (25)	0.55	21.85	5.84	26.72

Table 6
Differential knowledge gained by the respondents (between pre test and post test) (N=60)

Knowledge with score range	Frequency	Percentage (%)	Mean percent score
Low (10-14)	14	23.33	12.33
Medium (15-23)	34	57.00	19.41
High (24-35)	12	20.00	28.42

Comparison of pre test and post test scores for their gain in knowledge : This section describes the comparison between pre test scores and post-test scores to find out the effectiveness of developed e-booklet in terms of gain in knowledge by the respondents. Paired 't' test was applied to find out whether there was significant gain in knowledge or not of the respondents.
Overall gain in knowledge : The data on overall gain in knowledge is presented in Table 7 indicated that there was significant difference in the pre-test scores and post-test scores of the respondents as calculated 't' value, which was found to be significant at 0.01 level of significance.

Table 7
Overall gain in knowledge of the respondents.

Items	Mean per cent Score	Calculated 't' value
Pre test	36.84	
Post test	63.23	36.30**
Gain	26.39	

** Significant at 0.01 level of significance

The mean per cent score given in Table 7 showed that the initial knowledge of the respondents was poor having only 36.84 per cent. After the exposure of e-booklet a significant improvement found in knowledge of the respondents as the pre test scores that increased from 36.83 to 63.23 per cent along with 26.39 per cent gain in knowledge. It is seen from Table 7 that the computed value of 't' (i.e. 36.30) was statistically significant at 0.01 level of significance. This means that there was significant gain in knowledge level of the respondents.
Factors associated with gain in knowledge : In this section independent factors were calculated that were associated with gain in knowledge. To see the influence of age, caste, occupation, education, land holding, family type, family size, monthly income, extension contact and mass media exposure on gain in knowledge of women members regarding dairy farming practices through e-booklet, correlation coefficient were

calculated.

A critical examination of data presented in Table revealed that respondents occupation, land holding, family type, monthly income, milk production and milk sale had positive significant association with the knowledge gain. Table further indicated that age, caste, education, family size, extension contact and mass media exposure were not significantly associated with the knowledge gain.

Table 8
Factors associated with gain in knowledge

Sr. No.	Independent variables	Calculated 'r' value	Calculated 't' value
1.	Age	0.021	0.161 $_{NS}$
2.	Caste	0.171	1.427 $_{NS}$
3.	Occupation	0.710	10.029**
4.	Education	0.082	0.620 $_{NS}$
5.	Land holding	0.386	3.754**
6.	Family type	0.264	2.340*
7.	Family size	0.190	1.609 $_{NS}$
8.	Monthly income	0.251	2.204*
9.	Extension contact	-0.052	-0.361 $_{NS}$
10.	Mass media exposure	0.028	0.215 $_{NS}$
11.	Milk production	0.373	3.580**
12.	Milk sale	0.350	3.300**

NS-Non significant; * Significant at 5% level of significance; ** Significant at 1% level of significance.

CONCLUSION

Majority of the respondents (70%) had medium knowledge with MPS 50.02 followed by low level of knowledge category (18.33%) with MPS 29.09 and high level knowledge category (11.67%) with MPS 75.03 in pre-test. In Post-test majority of the respondents (56.67%) had medium knowledge with MPS 53.56 followed by high level of knowledge category (40%) with MPS 77.41 and low level of

knowledge category (3.33%) with MPS 31.05%. Majority of the respondents (57%) were found in medium knowledge gain with MPS 19.41 followed by low knowledge gain (23.33%) with MPS 12.33 and high level of knowledge gain (20%) with MPS 28.42. Occupation, land holding, family type, monthly income, milk production and milk sale had positive and significant relationship with knowledge gain at one and five per cent level of significance.

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