

Effectiveness of Interactive Multimedia Compact Disc and Web Page in Knowledge Gain and Symbolic Adoption among Tribal Farm Women

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ABSTRACT

A study was conducted in two villages of Kothagiri block of Nilgiris district in Tamil Nadu. The plant protection measures in tea crop for the pest red spider mite and blister blight disease was selected as the technology. Considering its prime importance, a newness and demand from the tribal farm women and the reconnaissance survey made in the study area paved way to select the technology. The present study was conducted with a specific objective to know the effectiveness of the Interactive Multimedia Compact Disc (IMCD) and Web page in terms of knowledge gain and symbolic adoption by the tribal farm women. Four treatments namely Interactive Multimedia Compact Disc (T1), Interactive Multimedia Compact Disc followed by discussion (T2), Web page(T3), Web page followed by discussion (T4) were tested for their effectiveness. The effectiveness was studied in terms of knowledge gain and symbolic adoption for all the four treatments. Interactive Multimedia Compact Disc (T1) was found to be most effective and superior in imparting knowledge. All the four treatments were effective in imparting knowledge with considerable variation in their effectiveness. Among the four treatments Interactive Multimedia Compact Disc followed by discussion (T2) had highest symbolic adoption score. Moreover, there existed significant difference between the four treatments in influencing the symbolic adoption.

Key words: *Effectiveness; Knowledge gain; Symbolic adoption; Interactive multimedia compact disc; Web page;*

The technologies developed within the four walls of laboratories and research field, must reach the farmers at the earliest to speed up the process of transfer of technology amongst the farmers. As per the reports of the Extension Division of ICAR, New Delhi, 80 per cent of the technologies generated by the researchers in agricultural sector are either not transferred to the ultimate users or they do not find applicability in farmers' field. Out of remaining 20 per cent of the technologies, around 50 per cent do not impress the farmers due to its effective technology transfer that ranges from language to effective demonstration of using the available tools. The problem in transferring the evolved technology is much more in our country which could perhaps efficiently be countered through the use of advanced communication gadgets. (Deveraj and Chaturvedi, 2003). Since time immemorial, rural tribal women have been working along with men in every sphere of life including agriculture. Like others, agriculture is the mainstay of

tribal people also. The tribal women outperform men in both quality and quantity of farm work. They work harder than men and are not only the home makers but also good providers to the family. Keeping this in view, the present study was conducted with a specific objective to find out the effectiveness of the Interactive Multimedia Compact Disc (IMCD) and Web page in terms of knowledge gain and symbolic adoption by the tribal farm women.

METHODOLOGY

Keeping in view the above objective, the study was conducted in two villages of Kothagiri block of Nilgiris district in Tamil Nadu. The plant protection measures in tea crop for the pest red spider mite and blister blight disease was selected as the technology. Considering its prime importance, a newness and demand from the tribal farm women and the reconnaissance survey made in the study area paved way to select the technology. Four treatments namely Interactive Multimedia Compact

Disc, Interactive Multimedia Compact Disc followed by discussion, Web page, Web page followed by discussion were tested for their effectiveness. The effectiveness was studied in terms of knowledge gain and symbolic adoption for all the four treatments. Before-After Randomized Group Design was used. The experiment was conducted in two villages and the total number of subjects was 120. The data were collected with the help of a well structured interview schedule and the data were analyzed using suitable statistical tools. The experiments were applied in the selected villages and the knowledge and symbolic adoption of the subjects both at the pre and post exposure stages were collected using knowledge and symbolic adoption tests respectively. The data were analyzed by using statistical tools including percentage analysis, cumulative frequency method, analysis of variance (ANOVA), paired 't' test, correlation analysis, multiple regression analysis and omega test.

RESULTS AND DISCUSSION

The knowledge level of the subjects before and after the exposure was measured to find out the knowledge gain due to the exposure. Paired 't' test was applied to find out whether the difference between the pre and post-exposure scores was significant or not.

Effectiveness of the Interactive Multimedia Compact Disc in terms of knowledge gain : Table 1 revealed that the treatments have induced gain in knowledge among the respondents. The mean knowledge gain was 8.87 in the IMCD treatment. Whereas in IMCD + Discussion treatment the mean knowledge gain was 6.66. The mean knowledge gain was 4.94 in the Web page treatment, whereas in Web page + Discussion treatment the mean knowledge gain was 7.07. It was found that all the treatments have been effective in imparting knowledge on the subject matter. However, it can be observed from the means that all the four treatments were not equal in imparting knowledge.

From the above results it could be inferred that the subjects exposed to any one of the four treatments would have increased knowledge though not equally. Hence, IMCD may be used to impart knowledge in transfer of technology. It is evident that there existed significant difference in the effectiveness of the treatment in imparting knowledge as indicated by the significant 't' value.

The mean scores of the four treatments were found to be as follows.

Mean knowledge gain:

IMCD = 8.87

IMCD + Discussion = 6.66

Web page = 4.94

Web page + Discussion = 7.07

All the treatments were effective but distinctly different in imparting knowledge. It can be observed from the mean knowledge gain scores that the treatments (i.e.) Interactive Multimedia Compact Disc was superior when compared to the other treatments. The difference in the communication gadgets has showed a positive result in imparting knowledge on the subject. It is therefore, inferred that there existed significant difference between the treatments used. Of the four, the Interactive Multimedia Compact Disc was superior to all other treatments. Thus the results indicate that all the four experiments were effective in communicating information, with considerable variation in their effectiveness. The results are in conformity with the results of *Bhuvanewari (2002)*, *Mooventhan (2006)* and *Puthira Prathap (2006)*.

The above results reveal three important inferences.

- Presentation of agricultural technology through Interactive Multimedia Compact Disc (IMCD) to the subjects could disseminate farm information and thereby used as an effective Transfer of Technology tool.

Table 1. Relative effectiveness of different treatments in terms of knowledge gain (N=30 in each treatment)

Treatments	Mean		Mean knowledge gain	Standard error	't' value
	Before exposure	After exposure			
IMCD	11.93	20.80	8.87	0.708	3.114**
IMCD + Discussion	11.20	17.86	6.66	0.906	5.054**
Web page	10.06	15.00	4.94	0.594	3.265**
Web page + Discussion	9.93	17.00	7.07	0.745	2.432*

** Significant at 0.01 level

* Significant at 0.05 level

- Delivery of agricultural information through web page exposure to the subject’s offline could disseminate farm information and thereby increase one’s knowledge to the desired expectations.
- Each treatment has differential effectiveness in causing significant changes in the knowledge level of the subjects.

Based on the findings presented above, the null hypothesis that there would be no difference in knowledge gain among the subjects exposed to the treatments was rejected.

Relative effectiveness of the different treatments in terms of symbolic adoption : The relative effectiveness of the treatments in terms of influencing symbolic adoption was tested using ‘t’ test. The results are presented below.

Table 2. Relative effectiveness of different treatments in terms of symbolic adoption (n=30 in each treatment)

Treatments	Mean	Standard error	‘t’ value
IMCD	49.96	0.359	3.414**
IMCD + Discussion	51.43	0.256	9.224**
Web page	47.80	0.221	2.290*
Web page + Discussion	46.70	0.281	6.082**

** - Significant at 0.01 level , * - Significant at 0.05 level

It was observed that all the four treatments have influenced the symbolic adoption of the respondents. All the treatments will be effective in influencing the symbolic adoption to the respondents. Based on the findings presented above, the null hypothesis that there would be no difference in symbolic adoption among the subjects exposed to the treatments was rejected.

CONCLUSION

All the four experiments had significant ‘t’ value and were effective in terms of knowledge gain. The mean knowledge gain with regard to Interactive Multimedia Compact Disc was maximum with a score of 8.87. All the four treatments T₁, T₂, T₃ and T₄ were effective in imparting knowledge with considerable variation in their effectiveness. There existed significant difference in effectiveness between the treatments in imparting knowledge. Interactive Multimedia Compact Disc (T₁) was found to be most effective and superior in imparting knowledge. Among the four treatments T₂ (Interactive Multimedia Compact Disc + Discussion) had highest symbolic adoption score. There existed significant difference between the four treatments in influencing the symbolic adoption.

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