

Effectiveness of Videoshow and its Combinations in Promotion of SRI (System of Rice Intensification) Method of Paddy Cultivation

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ABSTRACT

The study was conducted in five villages of Kalghatgi tahsil of Dharwad district. Before and after with control group experimental design was used to determine the effectiveness of teaching methods and their combinations in terms of knowledge gain. System of Rice Intensification (SRI) method of Paddy cultivation was the subject matter selected for the study considering its prime importance in traditional paddy cultivating areas. The study revealed that, video screening at defined stages and video screening once were statistically similar and most effective methods resulting in gain in knowledge by the respondents followed by video screening once + mobile advisory + expert mediated group discussion. Mobile advisory method was the least effective one. All the four treatments significantly contributed for gain in knowledge by the respondents except for the control group.

Key words *Knowledge gain, Mobile advisory, System of Rice Intensification, Video*

Agriculture is an important sector with majority of the rural population in developing countries depending on it. This sector is confronted with the major challenge of increasing production to feed a growing population in a situation of decreasing availability of natural resources. New approaches and technical innovations are required to cope with these challenges and to enhance the livelihoods of the rural population. The role of ICT to enhance food security and support rural livelihoods is increasingly recognised and was officially endorsed at the World Summit on the Information Society (WSIS) 2003-2005. This includes the use of computers, internet, geographical information systems, mobile phones, video as well as traditional media such as radio or TV. The agriculture extension mechanism is becoming dependent on IT to provide appropriate and location specific technologies to the farmers.

Video which combines both visual and verbal communication methods appears to be an effective extension tool for less developed countries, as this medium is suited for the transmission of information and knowledge. Compared to traditional extension methods, videos are reported to reach many people in a short period of time. People learn through the eyes and ears both and thus remember the things better.

SRI is an improved method of rice cultivation developed in 1983 in Madagascar, was selected based on its importance in recent years. The present study was an effort to determine the effectiveness of selected modern teaching methods in promotion of SRI method of Paddy cultivation in terms of knowledge gain.

MATERIAL AND METHODS

The present investigation was based on before-after with control group experimental design. The SRI method of paddy cultivation was the subject matter selected considering its prime importance in recent years. The study was conducted in five villages of Kalaghatgi tahsil of Dharwad district. Different teaching methods *viz.*, video screening once (T1), video screening at defined stages (T2), mobile advisory (T3), video screening once+ mobile advisory + expert mediated group discussion (T4) and control (T0) were selected. The subject matter was processed and script was written in local language and was finalized by the experts. On the basis of the script, the video was developed in actual field conditions and the same script was used for preparing the messages for mobile advisory treatment for testing their effectiveness. From each village 25 respondents were selected and were exposed to the treatments separately. Before exposure to the treatments, pre-test was conducted for both experimental and control group respondents by

Table1. Effectiveness of selected teaching methods in terms of gain in knowledge.

n=25 for each treatment

Sl. No	Treatment	Mean knowledge score		Difference	% Gain in knowledge	Paired 't' value
		Before exposure	Immediately after exposure			
1.	Video screening at once	1.08	23.84	22.76	75.86	94.833**
2.	Video screening at defined stages	0.92	24.36	23.44	78.13	54.704**
3.	Mobile advisory	1.20	12.44	11.24	37.46	22.589**
4.	Video screening at once + mobile advisory+expert mediated group discussion	0.84	19.12	18.28	60.93	46.42**
5.	Control	0.64	0.60	-0.04	-0.001	1

** Significant at 1% level of significance

administering the knowledge test. The scores obtained were considered as their knowledge scores. After the exposure to treatments, the post-test was conducted again for both experimental and control group respondents. The difference in scores between the pretest and immediate post-test was considered as knowledge gain.

Paired-t test was applied to find out whether the difference between the pre and post-test scores was significant or not. The collected data was analysed using SPSS 16.0.

RESULTS AND DISCUSSION

Table 1 revealed that, in video screening once (T1), mean knowledge gain was 22.76 whereas in video screening at defined stages (T2) the mean knowledge gain was 23.44. The mean knowledge gain was 11.24 for the mobile advisory (T3) and 18.28 for video screening once + mobile advisory + expert mediated group discussion (T4). The mean knowledge score of control group (T0) was -0.04, which indicated there was no gain in knowledge of control group respondents.

The computed 't' value for all the four treatments was positive and significant at 0.01 level of probability for gain in knowledge irrespective of teaching methods. Hence, it can be concluded that there was positive and significant difference between before exposure and after exposure knowledge levels of the respondents in all the treatment groups except for the control group which was found to be non-significant.

All the treatments were effective but distinctly different in imparting knowledge except for the control group. It can be observed from the mean knowledge scores that, the treatment video screening at defined stages and video screening once were superior followed by video screening once + mobile advisory + expert mediated group discussion. Mobile advisory was the least effective method. The basic concept of learning i.e. as the number of perceptual senses involved in learning increases there would be more meaningful learning. Philip (1946) argument supports the present finding. He states that, stimulation of two or more senses simultaneously results in quicker and easier mental expressions. Findings could be attributed to the visual literacy involved in all three treatments except for mobile advisory. In learning, visual literacy is given priority as one could see and learn thereby integrate all sensory experiences. The findings are in line with an old proverb "one picture is worth a thousand words". In video screening once, video screening at defined stages and video screening once + mobile advisory + expert mediated group discussion, the information was fortified with action and opportunity for contrived experiences have influenced the respondents to gain more knowledge than mobile advisory method.

The mobile advisory was the least effective method in influencing knowledge gain of the respondents. In mobile advisory, respondents were sent need based text messages on SRI method of paddy cultivation but they might not have shown much interest in understanding the messages by

themselves and/or by discussing with their fellow farmers. They might have just read the messages and forgotten with no further action. Messages are often felt uninteresting to the reader and do not hold their attention resulting in impaired learning. Leagans (1961) rightly pointed out that, combination of seeing and hearing was more effective in making impact on people and was usually necessary to promote action. Lack of these effects might have resulted low knowledge gain by mobile advisory. It is logical to expect enhanced knowledge when video was shown in whole and/or splits compared to mobile advisory and combinations of methods.

All the four treatments had significant 't' value and were effective in terms of knowledge gain except for control group. Video screening at defined stages and video screening once are the most effective methods resulting in knowledge gain on SRI method of paddy cultivation by the farmers. All the four treatments video screening once (T1), video screening at defined stages (T2), mobile advisory (T3) and video screening once + mobile advisory + expert mediated group discussion (T4) were effective in influencing knowledge gain of the farmers with considerable variation in their effectiveness.

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