Impact of Instructional Technology on Agricultural University Teachers

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ABSTRACT

The course of Instructional Technology useful to develop manpower in State Agricultural Universities with suitably increasing proficiency and competence in teaching among University Teachers. The teachers in Agril. University at large require orientation about educational technology in general and instructional technology in particular. Hence, in the context to above purpose training programme was organized by the Dr.Panjabrao Deshmukh Krishi Vidyapeeth (Dr.PDKV), Akola Maharastra during the year 2007-08 for the University Teachers. Findings of the study revels that majority of the participants unanimously agreed to response that training for improved job performance/ teaching competency was highly needed by them. Most of the participants of training programme had gained knowledge form the training. Further the results showed that the participants had significantly gained knowledge to the extent of 28.72 per cent over their pre knowledge score and the participants were of the opinion that training programme on Instructional Technology was very useful to them at very satisfactory level to build their teaching competency.

Key words: *Instructional Technology; Training;*

In modern era of transformation everything is in transition what is considered to be new and latest today may be old and obsolete tomorrow. In this time of fast developing technology much has to be accomplished for reaching the desired developmental goals. For such purposes training is a vital tool to attain, sustain and accelerate the pace of development.

Role of training institutes therefore becomes more crucial in this context wherein transfer of latest technology is done by using different training methods with proper blending of audiovisual aids and proper training management by trainers. No matter, how affectively the training programme has been formulated; it cannot be implemented effectively without motivated Participants to attend the training programme. Along with this, trainee's attributes, training needs, job satisfaction and constraints influence training effectiveness in one or the other way.

Instructional technology implies a behavioral science approach to teaching and learning in that it makes use of pertinent scientific and technological methods and concepts developed in Psychology, Sociology, Communication, Linguistics and relates fields. It also attempts to incorporate the management principles of cost effectiveness and the efficient development and use of available resources in man and material. On the whole it means development, application and evaluation of educational system, technologies and aids in the field of learning.

Agricultural and allied science is applied sciences and hence requires instructional technologies that will be of help to give hand on experiences to the learners. The learners should be able to develop three ways namely cognitive, affective, and motor. In view of this it is necessary, therefore to equip agricultural teachers in SAUs with educational technology knowledge, understanding and skills, so that they will become effective learning facilitators. Previous research studies have clearly demonstrated the importance of instructional technologies in student learning. Instructional media not only influence the performance and motivation of students but also affects classroom climate measured in terms of classroom ethos *(Sharma,1989). Malik and Punia (1991)* reported that educational technology is not for improving the quality of instruction but also meet challenges of scientific and technical revolution.

The course of Instructional Technology useful to develop manpower in Agricultural Universities with suitably increasing proficiency and competence in teaching among University Teachers. Although the teachers have skill and knowledge about the subject of their specification, every one of them may not have the same about facilitating their students to learn the subject effectively and it is the rationale behind organization of the course on instructional technology for Agricultural University Teachers. The teachers in Agril. University at large require orientation about educational technology in general and instructional technology in particular. Hence, in the context to above purpose training programme was organized by the Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharastra during the year 2007-08 for the University Teachers.

Evaluation of any training programme provides an opportunity to ascertain the knowledge gain by the participants and also the training satisfaction as a result of undergoing training. Further it provides the scope for improvement in the quality of any training programme based on the suggestions of the participants. Keeping in view the present study was planned to find out its impact with the following objectives:

1) To analyse socio-personal characteristics of participants of the training programme.
2) To analyse the participants knowledge gain from the training programme.
3) To assess the participants opinion about training programme.

METHODOLOGY

During the year 2007, one training programme was sponsored by the ICAR, New Delhi, which was conducted at Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola where in 40 academic staff from different departments, had participated. These participants constituted the sample of the study. A pre-structured evaluation schedule was developed as per the objectives of the study and administered to the participants before start of the training programme. In addition, a knowledge tests was administered to the participants before and after the training programme to assess the gain in knowledge. Participants opinions about various aspects of training programme were sought at the end on a there-point continuum namely very satisfactory, satisfactory and not satisfactory with the scores of 3, 2. and 1 respectively. The mean scores, percentages, standard deviation and 't' values were worked out to draw inferences.

RESULTS AND DISCUSSION

Personal Variables of Participants: Table 1 revels that the participants (52.50%) were young whereas (45.00%) of them were in middle age with regard to their educational level it was found that 29 (72.50%) of them were M.Sc / M.Tech and 10 (25%) were Ph.D. As regards experience of the participants it was found that majority 21 (52.50%) of the participants were having experience up to 10 years. Training exposure level of participants was found to be quiet low, wherein 28 (70.00%) of them had not attended a single training for job improvement. One fourth i.e.10 (25%) of them had attending one training, followed by those who attended two trainings 4 (10%) which is turn resulted in higher training needs.

Table 1 further makes it evident that majority 33 (82.50%) of participants unanimously agreed to response that training for improved job performance/ teaching competency was highly needed by them.

Table 1. Personal variables of participants (N= 40)

S.No	Variables	No.	%
1	*Age*		
	Upto35 yrs	21	52.50
	36-50 yrs	18	45.00
	Above 50 yrs	01	02.50
2	*Education*		
	B.Sc.	01	01.50
	M.Sc.	29	72.50
	Ph.D	10	25.00
3	*Experience*		
	Upto l0Yrs.	21	52.50
	ll-20Yrs.	10	25.00
	Above 20 Yrs.	09	22.50
4	*Training exposure*		
	Attended No training	28	70.00
	Attended one training	08	20.00
	Attended two trainings	04	10.00
5	*Training Needs*		
	Most needed	18	45.00
	Needed	15	37.50
	Not needed	07	17.50

Level of knowledge gain by the participants: The information collected from the participants was analyzed to find out the gain in knowledge on various aspects related to instructional technology, and the results are presented in Table 2. From the Table 2, it could be observed that majority of the respondents (82.50%) had gained medium level of knowledge about various aspects imparted during training. This implies that most of the participants of training programme had gained knowledge form the training. The gain might be attributed to the level that the training programme has included the course content well suited to the participants job

needs and the teaching methods used might have created interest to learn more.

Table 2. Distribution of participants according to knowledge gain (N=40)

S. No.	Category	No.	%
1.	Low (Upto10)	04	10.00
2.	Medium(11-20)	33	82.50
3.	High (Above20)	03	7.50

Further, the information pertaining to the pre and post knowledge scores and knowledge gain by the participants of training programme was analysed and the results were presented in Table 3. The results showed that the participants had significantly gained knowledge to the extent of 28.72 per cent over their pre knowledge score. This indicated that the participants had evinced keen interest in learning different instructional technologies imparted during training. The significant knowledge gain might be due to the fact that the training programme was well planned and designed to suit the job needs of the participants. This result of the study is in line with the finding of *Anil Kumar et al. (1994)* who found that 29.30 per cent increase in knowledge on improved farm technology due to training.

Opinion about training: In order to ascertain the opinion of the participants about training the information was collected at the end of the training programme from all the participants. The opinion items includes the subject matter coverage, methodology adopted, training aids used, usefulness of the programme, facilities provided and meeting the needs and interests of the participants.

Table 3. Mean Knowledge Gain by the Participants after Training Programme (N=40)

Particulars	Mean Knowledge Score	Mean Difference	'Z' Value
Pre training score	11.04 (44.16)		
Post training score	18.22 (72.88)	07.18 (28.72)	11.22**

** Significant at 1 per cent level of probability
Figure in parentheses indicate percentages

From the Table 4, it is clear that the University teachers/ participants were of the opinion that training programme on Instructional Technology was very useful to them at very satisfactory level to build their teaching competency. All the participants told that facilities provided during training were satisfactory. Majority were of the opinion that the training programme was corresponding to their needs and interests. Further, they opinion that methodology adopted to cover the subject matter was satisfactory and were able to understand the contents.

Table 4. Opinion about Training Programme on Instructional Technology (N= 40)

S.No.	Opinion items	Very satisfactory		Satisfactory		Unsatisfactory	
		No.	%	No.	%	No.	%
1.	Subject matter coverage	21	52.50	19	47.50	00	00.00
2.	Methodology adopted	20	50.00	19	47.50	01	02.50
3.	Teaching aids used	24	60.00	14	35.00	02	05.00
4.	Usefulness of the programme	28	70.00	12	30.00	00	00.00
5.	Facilities provided	28	70.00	11	27.50	01	02.50
6.	Meeting the needs and interests of the paricipants	26	65.00	14	35.00	0	00.00

CONCLUSION

It is concluded from the evaluation of the training programme that a well designed training programme based on the needs of the participants would result in gain in their knowledge substantially which ultimately lead to satisfaction. Hence, it is suggested that if the training programme is well planned based on the participants' needs and if provided congenital learning environment in the classroom/field visits/practical coupled with other training facilities will certainly lead to higher acquisition of knowledge and provide greater satisfaction of training to the participants.

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