

Assessing the Level of Effectiveness of Training Programmes for Enhancing Core Competencies of Extension Personnel: An Analytical Study in Kerala

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ABSTRACT

Effectiveness of training refers to the quantification of the degree to which a training activity attains its objectives, like measurement on whether the intended changes in knowledge, skills and attitudes happened. Three training institutions: Community Agro biodiversity Center –CabC (working under an NGO), State Agricultural Management and Extension Training Institute-SAMETI (working under State Department) and Central Training Institute-CTI (under State Agricultural University) were chosen for the study. Purposive and Random Sampling were carried out for the study. The sample consisted of trainees from three different training institutes. Four different training programmes related to core competency development being organized during 2017-18 were selected purposively from each of the three training institutes. Fifteen trainees for each training programmes were selected randomly with a sample size of sixty from each institute making one hundred eighty trainees as total sample size. Questionnaire was developed for the study. Personal interview and focus group discussion methods were also used as tools for data collection. In the present study, in order to measure the training effectiveness, an index was developed using six parameters viz. Applicability, relevancy, timeliness, improvement in knowledge, skill and attitude, conviction, improvement in job performance and satisfaction. ANOVA test revealed that there is significant difference between training effectiveness in terms of applicability, relevancy, improvement in KAS, conviction, improvement in job performance and satisfaction in different training institutes. Post Hoc test with Duncan test revealed that there is no significant difference between CTI and CABc in case of five parameters of training effectiveness –applicability, relevance, Improvement in KAS, conviction, improvement in job performance and satisfaction. But CTI and CABc vary significantly with SAMETI in case of these parameters.

Keywords: Core Competency; Effectiveness; Applicability; Relevancy; Conviction; Timeliness; Job Performance; Job Satisfaction;

Training is the vital and incessant prerequisite for agricultural development. Training which is considered as the course of acquiring definite skills to execute a task better. (Dahama, 1979). It is progressively being recognized as a chief device to build up competencies and to advance performance in diverse fields. Trainers at micro and macro level have been investing time and endeavour in exploring ways and means to improve its delivery. It helps citizens develop into experienced and dexterous in doing certain tasks as compared with the

previous circumstances. Generally, an organization facilitates the workforce learning through training, so that their tailored behaviour contributes to the accomplishment of the organization's goals and objectives.

Training helps in achieving high standards and excellence. It has been noted that the countries which have acknowledged the need for training and human resource development very early in the beginning of development process, have witnessed more rapid growth

in comparison with countries, which have not. Training of extension personnel is seen as an essential part of agricultural development. Trained personnel are a way and end towards social change. Effectiveness of training refers to the quantification of the degree to which a training activity attains its objectives, like measurement on whether the intended changes in knowledge, skills and attitudes happened (Warris, 2015).

An effective training programme will infuse desirable change in knowledge, skill and attitude of trainee. Great stress should be given while designing training so that it is effective, relevant and as per the objectives to be attained. But most of the training programmes are conducted haphazardly without assessing the training needs of extension personnel. Resultantly, the human and material investment made in training is pointless. Hence, efforts should be made to develop training in accordance with the needs of extension functionaries. Primarily need assessment should be done in order to bring about effective training.

Davis et.al (2014) indicated that the responses from participants of various training programmes, review reports, and consultations with agricultural development workers at different levels of the region, and farmers have shown that the outcomes were disappointing and there were deficiencies in the conduct of training programmes - designing, implementing, monitoring, and evaluation. Conversely, no logical efforts are accessible to determine these affirmations and controversies. The impact that training can make to agricultural development is unquestionable, but several uncertainties come up over its effectiveness and efficiency. An in-depth study is required for the evaluation of training programmes. Hence, a systematic analysis was required to assess the effectiveness of training programmes conducted for extension personnel. In this context, the present investigation has been done with this objective so that the policy makers can be provided with this information regarding the training effectiveness and also on how to carry out training of extension personnel effectively. The study results will give pattern of effectiveness of different training programmes in terms of improvements in knowledge, attitude and practice levels. The outcome of this study will have high relevance for policy makers, organizations and extension personnel for developing strategies for designing and efficiently conducting effective training programmes.

METHODOLOGY

The study was conducted purposively in the state of Kerala. Report by Human Development Index and extension worker to farmer ratio in Kerala is 1:300 (Sulaiman (2012)) indicated that Kerala is comparatively superior in position in comparison with other states. Three training institutions: Community Agro biodiversity Center (working under an NGO), SAMETI (working under State Department) and CTI (under State Agricultural University) were chosen for the study. The sample consisted of trainees from the three different training institutes. Four different training programmes related to core competency development being organized during 2017-18 were selected purposively from each of the three training institutes. For each training programme, sample of 15 trainees were selected, totalling about 60 trainees for four training programmes from each training institute. Thus, the total sample size for the study was 180. The questionnaire was designed with due procedure and data collected through personal interview, questionnaire and focus group discussion.

Training Effectiveness Index was developed using six parameters viz. Applicability, relevancy, timeliness, improvement in knowledge, skill and attitude, conviction, improvement in job performance and satisfaction. Training Effectiveness Index was calculated as below:

$$TEI = \frac{W1 \cdot R1 + W2 \cdot R2 + \dots + W6 \cdot R6}{W1 + W2 + \dots + W6}$$

Where-

TEI= Training Effectiveness index

W1, W2...W6 – weightage given by the experts

R1, R2....R6- Parameters chosen

RESULTS AND DISCUSSION

In the present study, in order to measure the training effectiveness, an index was developed using six parameters viz. Applicability, relevancy, timeliness, improvement in Knowledge, Skill and Attitude (KAS), conviction, improvement in job performance and satisfaction.

From the Table 1, the results (weightage given by the judges) revealed that highest weightage was given to 'improvement in job performance and satisfaction' by the experts as the ultimate aim of training is enhancement of job performance of trainees in their work organizations and thereby job satisfaction is gained from their working organization.

Overall frequency distribution of Training

Table 1. Index weightages (WS) on six effectiveness parameters by the Judges

Parameters	WS
Applicability	18.00
Relevance	16.00
Timeliness	11.00
Improvement in knowledge, skill and attitude	18.75
Conviction	08.25
Improvement in job performance and satisfaction	28.00

Effectiveness Index (TEI) was also calculated which is presented in Table 2. Training Effectiveness Index (TEI) of trainers of SAMETI were found to lie between high (>4.011) and medium (2.68-4.011) levels of training effectiveness. TEI score of trainers of CTI and CABc were found to range between low (<2.68) and medium (2.68-4.011) levels of training effectiveness. Trainers have perceived their training effectiveness as high in case of SAMETI followed by CTI and lowest in case of CABc.

It is evident from the Table 2 that mean value of TEI score for six parameters in CABc is highest for ‘applicability (3.26) and lowest for ‘Relevancy (2.93). The mean value of TEI score for six parameters in CTI is highest for ‘Conviction’ (3.08) and lowest for ‘Relevancy’ (2.9). In case of SAMETI, the mean value

Table 2. Mean and standard deviation of trainees for six parameters based on TEI scores

Parameter	CABc		CTI		SAMETI	
	Mean	SD	Mean	SD	Mean	SD
Applicability	3.26	0.45	3.02	0.55	4.46	0.55
Relevancy	2.93	0.84	2.9	1.16	4.46	0.55
Timeliness	3.14	0.61	2.94	1.14	2.57	0.36
Improvement in KAS	3.01	0.88	2.92	0.94	4.5	0.53
Conviction	3.2	1.01	3.08	1.21	4.5	0.53
Improvement in job performance and satisfaction	3.05	0.85	2.92	0.77	3.65	0.55
<i>Overall TEI</i>	3.08	0.63	2.95	0.89	4.03	0.34

is highest for ‘Improvement in KAS’ and ‘Conviction’(4.5) and lowest for ‘Timeliness’(2.57). The Overall mean value of TEI is highest for SAMETI (4.03), followed by CABc (3.08) and CTI (2.95). It shows that trainings conducted by SAMETI is found to be more effective compared to the other two institutes.

The results from Table 3 shows that in terms of applicability, the training programmes conducted by CABc, majority (81.67%) of the training programmes lie in the category of medium (2.89-4.27), whereas CTI lie in the category of low(<2.89) and medium (2.89-

Table 3. Distribution of trainees according to the six parameters

Parameters	Level of Effectiveness	CABc		CTI		SAMETI	
		No. (n=60)	%	No. (n=60)	%	No. (n=60)	%
Applicability	Low (<2.89)	11	18.33	27	43	0	0
	Medium (2.89-4.27)	49	81.67	28	46.7	31	49
	High (>4.27)	0	0	5	8.33	29	41
Relevancy	Low (<2.58)	17	28.33	23	38.33	0	0
	Medium (2.58-4.27)	43	71.67	31	51.67	31	51.67
	High (>4.27)	0	0	6	10	29	48.33
Timeliness	Low (<2.18)	4	6.67	22	36	8	13
	Medium (2.18-3.59)	41	68.33	20	34	52	86.67
	High (>3.59)	15	25	18	30	0	0
Improvement in KAS	Low (<2.69)	20	33.33	29	48.33	0	0
	Medium (2.69-4.27)	39	65	28	46.67	29	48.33
	High (>4.27)	1	1.67	3	5	31	51.67
Conviction	Low (<2.67)	14	23.33	23	38.33	0	0
	Medium (2.67-4.51)	46	76.67	29	48.33	9	15
	High (>4.51)	0	0	8	13.33	31	51.67
Improvement in job performance and satisfaction	Low (<2.47)	15	25	13	21.67	0	0
	Medium (2.47-3.93)	33	55	40	66.67	32	53.33
	High (>3.93)	12	20	7	11.67	28	46.67
Overall TEI	Low (<2.73)	15	25	25	41.67	0	0
	Medium (2.73-3.98)	44	73.33	24	40	27	45
	High (>3.98)	1	1.67	11	18.33	33	55

Table 4. ANOVA for TE for six parameters

Parameters	Mean Square		F
	Between Institutes	Within Institutes	
Applicability	71.93	98.92	64.35
Relevancy	96.13	138.06	61.62
Timeliness	9.88	107.64	8.12
Improvement in KAS	93.60	116.22	71.27
Conviction	73.81	163.22	40.02
Improvement in job performance and satisfaction	18.02	96.78	16.48

4.27), SAMETI lie in the category of medium (2.89-4.27) and high (>4.27), according to trainees. Relevancy of the training programmes conducted by CABc, CTI and SAMETI is found to be in the category of medium (2.58-4.27) by the trainees. The timeliness of the training programmes conducted by CABc was found by the majority (68.33%) to be in the category of medium (2.18-3.59), whereas CTI to be in the category of low (<2.18) and medium (2.18-3.59), SAMETI was in the category of medium (2.18-3.59). In terms of timeliness, the training programmes conducted by CABc a majority (65%) lie in the category of medium (2.69-4.27), whereas CTI was in the category of low (<2.69) and medium (2.69-4.27), SAMETI was in the category of medium (2.69-4.27) according to the trainees. The training programmes conducted by CABc in terms of Conviction, majority (76.67%) is found to be in the category of medium (2.67- 4.51), CTI in the category of low (<2.67) and medium (2.67-4.51) and SAMETI in the category of high (>4.51). In terms of improvement in job performance and satisfaction, the training programmes conducted by CABc, CTI and SAMETI a majority perceived them to be in the category of medium (2.47-3.93). Analysis of Variances (ANOVA) was carried out to know whether there was any difference between six parameters in different institutes.

Table 5. Post Hoc Test for TE for six parameters

Core Competency	Subset for alpha=0.05		
	CABc	CTI	SAMETI
Applicability	3.02	3.26	4.46
Relevancy	2.90	2.93	4.46
Timeliness	3.14	2.94	2.57
Improvement in KAS	2.92	3.01	4.50
Conviction	3.2	3.08	4.5
Improvement in job performance and satisfaction	3.05	2.92	3.65
Significance		0.5	1

Significant F-test ($p < 0.01$) showed that there was significant difference between means of three training institutes in case of all the six parameters, *i.e.* Applicability, Relevancy, Timeliness, Improvement in KAS, Conviction, Improvement in job performance and satisfaction.

Post Hoc tests were carried out to explore which means are significantly different from each other.

Post-hoc test (Table 5) showed that there was significant difference between means of CTI, CABc and SAMETI in case of all the six parameters.

CONCLUSION

Training of extension personnel is an essential part of agricultural development. Trained personnel are a way and end towards social change. Training Effectiveness Index is found to high in SAMETI, medium in CABc, and low in CTI. This indicates that training programmes conducted by SAMETI is found to be highly effective by the trainees. From the study, it has been found that highest importance was given to the training programmes which help in improvement in job performance and satisfaction. Therefore thrust should be given for training programmes which enhances job performance and satisfaction.

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