Effectiveness of Training Programmes through Perception of KVK Trainees in Imphal East District of Manipur

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ABSTRACT

The effectiveness of training is a measurement of learning of the training programme. It is a complex concept that involves many interrelated activities. Generally effectiveness measures are defined in terms of the extent to which a set of objectives are met. In order to know whether the Krishi Vigyan Kendra's (KVK) are functioning well, assessment of their effectiveness is very important and so the study was conducted to assess the effectiveness of KVK training programmes through the perception of the trainees. The present study was carried out in Manipur during 2015-16. Ex-post facto research design was employed. 150 respondents (trainees) were selected on stratified random sampling with proportional allocation method. Primary data was collected using pre-tested structured interview schedule.Overall training effectiveness score of the training programme worked out to be 79.02 per cent which indicated that the KVK training was perceived as very effective by the respondents. The farmers also expressed that the KVK staffs were technically competent on practical session and providing opportunities to trainees for participating in deliberations.

Key words: *Training effectiveness; Training programmes, Krishi Vigyan Kendra;*

In India, more than 70 per cent population live in rural areas and agriculture is the main source of income. More than 60 per cent of the population depends on agriculture directly or in directly. One fourth of our GDP (Gross Domestic Product) comes from agriculture. With the increase in population the demand for food grain also increases. The demand for food grains in India is expected to rise through economic and social development. Trainingis teaching, or developing in oneself or others any skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance. It is a process through which a person enhances and develops his efficiency and effectiveness at work by improving and updating his knowledge and understanding relevant to his work. It helps to bring a desirable change in the behaviour and attitude of the trainee towards the work and other people. In order to see if the trainees are benefitted or not and if any improvement is needed regarding the training output, procedure, methods, facilities, teaching ability etc, assessment of training is a must. Thus, *Ray (2012)* mentioned that "training is the process of acquiring specific skills to perform a job better."

The ICAR institutes and state agricultural universities where the scientists are directly controlling and interacting with the targeted groups of farmers providing the first hand scientific information and technology through various frontline extension programmes like Krishi Vigyan Kendra (KVK), Operational Research Project (ORP), Lab to Land Programme, National Agricultural Innovation Project (NAIP), Agricultural Technology Information Centre (ATIC), Frontline demonstration of oil seeds, pulses and cereals and other transfer of technology projects under NATP. There is separate director of Extension Training

at national level, which regularly organizes the national level and collaborative training courses for the senior and middle level scientists working in different institutions. Besides many central sector schemes are in operation and regularly sponsored to various institutions for transfer of technology. The Directorate also supervises and coordinate with the state department of agriculture for different schemes funded by Ministry of Agriculture and Rural Development. Government of India had to improve socio-economic condition of downtrodden especially the small and marginal farmers. Keeping these views in mind, the present study was undertaken to assess theeffectiveness of training programmes through perception of KVK trainees and study the profile of the trainees.

METHODOLOGY

The present study was carried out in Manipur during 2015-16. Ex-post facto research design was employed. Manipur comprises of all together nine districts *viz.* Imphal East, Imphal West, Senapati, Churachandpur, Chandel, Ukhrul, Tamenglong, Bishnupur and Thoubal. Each District has one KVK. KVK Imphal East District (Andro) was selected purposively for the purpose.There are three blocks in Imphal East district, i.e, Sawombung, Jiribam and Keirao Bitra for the present study, Sawombung and Keirao Bitra blocks was selected purposively for the following reasons: KVK, Andro of Imphal East District is conducting campus training and off campus training since its inception (2005) under Central Agricultural University, Imphal to the farmers of these two blocks. Most of the trainings were confined to Sawombung and keirao Bitra blocks. There are 67 villages in Sawombung block and 36 villages in Keirao Bitra block. Out of these 6 villages from each block was selected randomly for the present study. 150 respondents (trainees) were selected on stratified random sampling with proportional allocation method. Primary data was collected using pre-tested structured interview schedule.

Procedure followed by Kulkarni and Nikhade (1996) was considered as a base for estimating training effectiveness. For identifying the individual effectiveness of the training aspect the following formula was applied (Kulkarni and Nikhade):

$$TE=\frac{D_1}{P_1}+\frac{D_2}{P_2}+\frac{D_3}{P_3}+ \ldots\ldots +\frac{D_n}{P_n} \tilde{a}\ 100$$

Where,

TE= training effectiveness, D_1,D_2,D_3, ...$D_n$refers to the total score obtained by all the respondents on a particular dimension of items P_1, P_2, P_3, ...P_n refers to the potential score obtainable on each dimensions included in the study. For calculating the overall programme effectiveness the following formula was used:

$$OPE=\frac{TEI_1+TEI_2+\cdots+TEI_n}{Z}$$

Where,

summation TEI_1+TEI_2+....refers to the individual effectiveness for all the items 1 to Z included in the programme.Analysis of primary data was carried out using multidimensional scaling technique of SPSS-16.

RESULTS AND DISCUSSION

The personal, socio-economic, socio-psychological and communication characteristics of the respondent, some of the basic parameters have been considered. These are age, educational level, total annual income, size of land holding, size of family, attitude towards KVK training, economic motivation, information seeking behaviour, source of information (cosmopolite and localite) and extension contact.

Trainees of middle age group were found as majority (61.33%). It is evident from the Table-1 that 35.34 per cent of the respondents studied up to middle school which is the majority of respondents. It revealed that majority of the respondents 47.33 per cent belonged to medium income (Rs. 88,000-Rs. 2, 91,000 per annum) group. It depicts that the largest percentage of the respondent 54.70 per cent owned a medium size of land (1-2 ha) and 54.00 per cent belonged to the small family. The reason could be that their family might be separated after marriage and followed by fragmentation of the land holding. Majority of trainees (42.67%) were in the high attitude category trainees, 35.33 per cent have medium economic motivation and majority of farmers (56.00%) had medium information seeking behaviour.The reason is, in today's complex society which is moving fast towards change, everyone is eager to know what is happening in their surroundings. It also indicates that majority of the trainees were medium user (50.00%) of information sources. It is observed from Table 1 that highest score was associated with medium

Table 1. Profile of the KVK trainees (N=150)

Category	Classification of Category	No.	%
Age	Young age(below 40)	31	20.67
	Middle age(40 – 56)	92	61.33
	Old (57 and above)	27	18.00
Educational	Illiterate	6	4.00
Level	Can read only	0	0.00
	Can read and write only	21	14.00
	Primary (up to class v)	21	14.00
	Middle school (up to class viii)	53	35.34
	High school (up to class x)	26	17.33
Annual	Low	34	22.67
Income	Medium	71	47.33
	(Rs 88,000 – Rs 2,91,000 per annum)		
	High	45	30.00
Size of land	Low (Below 1 hectare)	39	26.00
Holding	Medium (1-2 hectare)	82	54.70
	High (more than 2 hectare)	29	19.30
Family Size	Small (1-5)	81	54.00
	Large (6 and above)	69	46.00
Attitude	Low attitude	26	17.33
	Medium attitude	60	40.00
	High attitude	64	42.67
Economic	Low	45	30.00
Motivation	Medium	53	35.33
	High	54	34.67
Information	Low	31	20.67
Seeking	Medium	84	56.00
Behaviour	High	35	23.33
Source of	Low	31	20.67
Information	Medium	75	50.00
	High	44	29.33
Extension	Low	44	29.33
Contact	Medium	58	38.67
	High	48	32.00

Note: Figures in parentheses shows percentage to total.

extension contact 38.67 per cent. The possible reasons attributed for medium level of extension contact may be due to regular field visits by extension personal. These findings were found supported with findings of *Pradhan & Mukhergee (2012), Singh et al., Badodiya et al.(2011),Ghosh et al (2013)* and *Kumar et al.(2009).*

It was observed that all the respondents accounted in their perception towards KVK training programme on a three-point continuum scale on five major dimensions viz. Training output, Teaching Quality, Physical facility, teaching equipment and Coverage of topics. The responses so obtained from the trained farmers are presented in Table 2.

Training output: With regard to the training output, the scores for individual aspect indicating its relative effectiveness ranged from 68 to 88 per cent. The KVK training helped to know new technologies was found to be very effective and useful.

Coverage of topics: As regards to coverage of topics, the trainees total effectiveness score ranged from 47 to 97 per cent. The KVK training was found to be effective in the sub-areas registered the score of above 75 except the areas in construction of low cost polyhouse which registered 47, zero tillage cultivation of rapeseed and mustard which registered 49, protected cultivation technology which registered 52 and production technology of TPS and seed potato which registered 62.

Teaching equipment: The total effectiveness score under teaching equipment ranged from 37 to 97 per cent. However, the effectiveness with regard to the use of flip charts registered 37 per cent and flip charts registered 45 per cent were perceived as low by the respondents. Effective use of flash cards and flip charts might further increase the effectiveness of training.

Physical facility: The total effectiveness score under physical facility ranged from 56 to 84 per cent. However, the effectiveness with regard to transport facility was perceived as low by the respondents. Effective transport facility might further increase the training effectiveness.

Training quality: With respect to the training quality, the trainees total effectiveness score ranged from 36 to 94 per cent. The score (71.75) for the training quality was lowest among the five dimensions taken for the study. The effectiveness with regard to adequate KVK staffs for demonstration of new technology was registered as 36 per cent and was found to be the lowest among the sub-areas. Hence, it can be inferred that only the KVK staffs are not adequate for demonstration of new technology. These findings were found supported with findings of *Kaur &Talukdar (2007), Dubey et al.(2008), Sarmaet al.(2013)* and *Senthilkumar et al. (2014).*

Further, it could be observed from Table 3 that overall training effectiveness score of the training programme worked out to be 79.02 per cent which indicated that the KVK training was perceived as very effective by the respondents. The farmers also expressed that the KVK staffs were technically

Table 2. Scores obtained, extent potential ratio and total effectiveness score for each perception factor of KVK trainees (N=150)

Perceptional factors	Degrees of perception					
	SA	A	D	TS	EPR	TES
Training output						
KVK training helped to know new technologies	115	35	0	265	0.88	88
KVK training increased the knowledge on crop production	101	49	0	251	0.83	83
KVK training improved self-confidence	77	51	22	205	0.68	68
KVK training was need based and field oriented	100	50	0	250	0.83	83
Average	98.25	46.25	5.5	242.75	0.80	80.50
Training quality						
KVK staffs are adequate to demonstration of new technologies	41	28	81	110	0.36	36
KVK staffs taught farming techniques in simple manner	132	18	0	282	0.94	94
More number of other SMS are needed to teach the farming techniques	100	50	0	250	0.83	83
KVK staffs mingled freely with the trainees	74	76	0	224	0.74	74
Average	86.75	43	20.25	216.5	0.71	71.00
Physical facilities						
Lecture hall	79	71	0	229	0.76	76
Audio-visual aids	103	47	0	253	0.84	84
Transport facilities	49	72	29	170	0.56	56
Average	77	63.33	9.67	217.33	0.72	72.00
Teaching equipment						
Charts, diagrams	114	36	0	264	0.88	88
Blackboard and chalk/ Whiteboard and marker	143	7	0	293	0.97	97
Models and exhibit	125	25	0	275	0.91	91
Flash card	38	61	53	137	0.45	45
Printed material	112	38	0	262	0.87	87
Flip-charts	18	75	57	111	0.37	37
Posters	112	38	0	262	0.87	87
Projectors	95	55	0	245	0.81	81
Live specimen	112	38	0	262	0.87	87
Average	96.55	41.45	12.00	234.55	0.77	77.77
Coverage of topics						
Scientific cultivation of crops (Kharif, Rabi, Oilseed, Pulses etc)	130	20	0	280	0.93	93
High density planting of Pineapple	75	75	0	225	0.75	75
System of Rice Intensification (SRI)	127	23	0	277	0.92	92
Integrated Pest Management (IPM)	113	37	0	263	0.87	87
Nursery management	124	26	0	274	0.91	91
Integrated Farming System (IFS)	142	8	0	292	0.97	97
Package and practises for crops	138	12	0	288	0.96	96
Zero tillage cultivation for Rapeseed mustard	44	60	46	148	0.49	49
Use of Bio-fertilizers	137	8	5	282	0.94	94
Nutrient Management	133	17	0	283	0.94	94
Protected cultivation technology	42	73	35	157	0.52	52
Ratoon management of Banana and Pineapple	100	45	5	245	0.81	81
Production technology of TPS and seed potato	64	58	28	183	0.62	62
Importance of mulching	112	38	0	262	0.87	87
Importance of soil testing	77	73	0	227	0.75	75
Storage and preservation of crops, fruits etc.	105	27	18	237	0.79	79
Organic cultivation of crops	122	28	0	272	0.90	90
High yielding varieties	138	12	0	288	0.96	96
Manual weeding	142	8	0	292	0.97	97
Construction of low cost polyhouse	29	84	37	142	0.47	47
Average	104.7	36.6	8.7	245.85	0.79	79.90

SA=Strongly Agree, A=Agree, D=Disagree, TS=Total Score, EPR=Extent Potential Ratio, TES=Total Effectiveness Score

Table 3. Assessment of Total effectiveness (TES) training programmes through perception of KVK trainees

Perceptional Factors	TES
Training output	80.50
Training quality	71.75
Physical facilities	72.00
Teaching equipment	77.77
Coverage of topics	79.90
Overall effectiveness training programmes	79.02

Table 4. Correlation of the Personal, Socio-psychological, Socio-economic, Communication Characteristics and the Training Perception of the farmers

Characteristics	(r)
Age	0.359**
Educational level	0.190*
Total annual income	0.212**
Size of Land holding	0.219**
Size of Family	
0.022(NS)	
Attitude of farmers towards KVK	0.263**
Economic motivation	0.194*
Information seeking behavior	0.175*
Source of information (Cosmopolite and localite)	0.410**
Extension contact	0.415**

**correlation is significant at the 0.01 level of probability
*correlation is significant at 0.05 levels of probability and NS-Non Significant

competent on practical session and providing opportunities to trainees for participating in deliberations.

This section deals with the nature of relationship between selected dependent variables and independent variables. For ascertaining the relationship correlation coefficient was calculated between dependent variable and the ten independent variables separately for the effectiveness training programmes through perception of KVK trainees.The 'r' values are given in Table 4. Correlation coefficients between Age, Education, Annual income, Size of land holding, Attitude of farmers towards KVK, Economic motivation, Information seeking behavior, Source of information (Cosmopolite and localite) and Extension contact were found to be positive and significant of personal, psychological, socio-economic & communication characteristics with effectiveness training programmes through perception of KVK trainees. These findings were found supported with findings of *Chawang and Jha (2010),Badodiyaet al.(2011)* and *Kacharo(2007)*. Whereas family size was found to be negative significance of personal, psychological, socio-economic & communication characteristics with effectiveness training programmes through perception of KVK trainees.

CONCLUSION

It can be concluded that majority of the respondents (trainees) in Sawombung and Keirao Bitra blocks were satisfied with the training output, training quality, physical facilities, teaching equipment and coverage of topics in relation to training programme provided by KVK, Andro, Imphal-East District. Almost all farmers are involved in all agricultural operations. Yet they have inadequate technical competency due to their limited exposure to outside world. This has driven them to attend training programmes in order to adopt new technologies. Moreover, the trainees perceived that the training output was highest among the five perceptional factors while the training quality was perceived lowest. The result showed that the KVK training programmes are very effective in transfer of technology. The overall training effectiveness was very high which shows the effectiveness of training programmes provided by KVK, Andro. Independent variables namely, educational level, total annual income, size of land holding, attitude of farmers towards KVK, economic motivation, information seeking behaviour, sources of information and extension contact had positive and significantly correlated with the training effectiveness. The results show that even though considerable efforts have been made in training of farmers in the common vocations and areas of interest, there still remains a lacuna which needs to be filled. The KVK's do require re-orienting their training based on these findings for effective transfer of technologies among the target groups such as field visit to different farms owned by crop production farmers which will be more effective to motivate the farmers for adoption of new technology.

REFERENCES

Badodiya, S.K.; Yadav, M.K.; Daipuria, O.P. and Chauhan, S.V.S. (2011). Impact of training programmes on adoption of organic farming practices. *Indian Res. J. Ext. Edu.*, **11**(2).

Chawang, J.K. and Jha, K.K. (2010). Training needs of paddy cultivators in Nagaland. *Indian Res. J. Ext. Edu.*,**10** (1): 74-77.

Dubey, A.K.; Srivastava, J.P. and Sharma, V.K. (2008). Attitude of respondents towards KVK training programmes. *Indian Res. J. Ext. Edu.*,**8** (2&3): 78-80.

Dubey, A. K.; Srivastva, J. P.; Singh, R. P. and Sharma, V. K. (2008). Impact of KVK training programme on socio-economic status and knowledge of trainees in Allahabad district. *Indian Res. J. Ext. Edu.*, **8**(2&3): 60-61.

Ghosh, S.; Kumar, A. and Mohapatra, T. (2013). Impact assessment of the farmers trainings on scaling-up of water productivity in agriculture. *Indian Res. J. Ext. Edu.*, **13**(1).

Kacharo, K.D. (2007). Agricultural information networks of farm women and role agricultural extension. *M.Sc. thesis*, Department of Rural Development and Agricultural Extension, School of Graduate Studies, Haramaya University.P.O. Box 138, Dire Dawa, Ethiopia

Kaur, H. and Talukdar, R.K. (2007). Utility of farm women training programmes in livelihood security. *Indian Res. J. Ext. Edu.*, **7**(2&3): 15-17.

Kulkarni, S.Y. and Nikhade, D.M. (1996). Effectiveness of Extension Training Programmes for agriculture development. *Agril. Ext. Review.* **8**(1): 3-5.

Kumar, M.; Sethy, S. and Gorai, D. (2009). Krishi Vigyan Kendra – Kisan Club Linkage : an approach towards agricultural prosperity. *Indian Res. J. Ext. Edu.*, **9**(2): 76-79.

Pradhan, K. and Mukherjee, K. (2012). Revamping the technology dissemination process through farm science centre. *Indian Res. J. Ext. Edu.*,**12**(3): 48-52.

Ray, G. L. (2012). Extension communication and management. Kalyani Publishers, Ludhiana

Sarma, H.; Talukdar, R.K. and Mishra, P. (2013). Impact of training on knowledge level of integrated rice-fish farming practices. *Indian Res. J. Ext. Edu.*, **11**(1): 87-90

Senthilkumar, K.; Devaki, K. and Subramanian, R. (2014). Assessment of effectiveness of training programmes through perception of Krishi Vigyan Kendra trainees. *Indian Res. J. Ext. Edu.*, **14**(1): 96-98

Singh, H.P.; Singh, D.; Naruka, P.S. and Gupta, B.S. (2012). Effectiveness of training techniques methods use in training programme of Krishi Vigyan Kendra, Mandsaur, Madhya Pradesh. *Indian Res. J. Ext. Edu. Special Issue.*, **1**: 205-206

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