P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating (2025): 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 9; September 2025; Page No. 176-181

Received: 25-06-2025
Accepted: 29-07-2025

Indexed Journal
Peer Reviewed Journal

Evaluation of major training programmes conducted by KVK, Akola

UG Thakare

Senior Scientist and Head, Krishi Vigyan Kendra, Akola, Maharashtra, India

DOI: https://www.doi.org/10.33545/26180723.2025.v8.i9c.2395

Corresponding Author: UG Thakare

Abstract

The present study was conducted to evaluate the impact of major training programmes organized by Krishi Vigyan Kendra (KVK), Akola, Maharashtra. A total of 211 trainees who attended seven on-campus training programmes were included. The study aimed to assess training effectiveness, satisfaction, and impact in terms of knowledge and attitude gain. Results revealed a significant increase in knowledge (76.75%) and attitude (79.55%) across different training programmes. Trainees expressed high satisfaction with subject matter, classroom facilities, and communication, while relatively lower satisfaction was observed regarding library facilities and recreational amenities. Training effectiveness indicators showed high ratings for topics covered (4.44/5) and relevance of lectures (4.67/5). Correlation analysis indicated education, socio-economic status, and farm size were positively associated with knowledge and attitude changes. The findings underline the critical role of KVK training programmes in improving farmers' skills, knowledge, and entrepreneurial capacities.

Keywords: Krishi Vigyan Kendra (KVK), socio-economic status, communication, entrepreneurial capacities

Introduction

Agricultural extension systems in India aim to bridge the gap between research and field application. Krishi Vigyan Kendras (KVKs) serve as frontline institutions imparting vocational training to farmers, farm women, and rural youth for skill development, sustainable farming, and entrepreneurship promotion. The relevance of training programmes has been well documented in enhancing farmers' productivity and income (Singh *et al*., 2019; Sharma *et al*., 2021) [8, 6].

The present study focuses on self-evaluation of seven major training programmes conducted by KVK Akola in areas such as goat management, poultry production, cereals processing, fruit and vegetable dehydration, millet farming, natural farming for Krishi Sakhis, and entrepreneurial capacity building. The objectives were:

1. To study training effectiveness
2. To assess training satisfaction
3. To measure the impact of training on knowledge and attitude

Methodology

The present study was carried out in Akola district of Maharashtra, where Krishi Vigyan Kendra (KVK), Akola is located. The KVK has been actively organizing capacity-building programmes for farmers, farm women, and rural youth.

Research Design: An exploratory and diagnostic design of social research was adopted for the study. This design was considered suitable as the objective was not only to measure the training outcomes but also to diagnose the factors influencing training effectiveness and satisfaction.

Sampling Plan: The on campus training having 05 days duration were considered for this study.

The study covered the entire population of trainees who attended the seven major on-campus training programmes conducted at KVK, Akola. These programmes included goat management, poultry production, cereals processing, dehydration of fruits and vegetables, millet farming, natural farming (for Krishi Sakhi), and entrepreneurial capacity building. A total of 211 participants were included through a population study approach.

Table 1: Distribution of On Campus Trainings and Trainees

Sr	Name of the training	Duration	Trainees (No.)
01	Goat Management	05	27
02	Poultry Production	05	33
03	Opportunity of Cereals Processing	05	26
04	Dehydration of Fruits and Vegetable Processing	05	34
05	Millet farming	05	32
06	Natural Farming (for Krishi Sakhi)	05	30
07	Entrepreneurial capacity building		28
Total		--	211

Data Collection: A structured interview schedule was developed to collect primary data from participants. The tool was pre-tested for reliability and validity before use. Both pre-training and post-training data were collected on knowledge and attitude levels using standardized scales. In addition, participants' socio-economic profiles, innovativeness, scientific orientation, economic motivation, and risk preference were recorded.

Measurement of Variables: Knowledge and Attitude were measured using pre- and post-training tests on a three-point scale. Training Satisfaction was captured through indicators of technical competence, facilities, and communication methods using a 5-point Likert scale. Training Effectiveness was evaluated through completeness of topics, relevance, practical orientation, fulfillment of expectations, and quality of training. Socio-economic Profile included education, farm size, income, socio-economic status, innovativeness, scientific orientation, economic motivation, and risk preference. The Socio-economic Status was measured with the help of SES Scale developed by Thakare and Ingle (2007) [9].

Statistical Analysis: The collected data were analyzed using descriptive statistics such as mean, standard deviation, and percentages. The percentage change method was applied to assess improvement in knowledge and attitude. Correlation analysis was used to identify associations between trainee characteristics and training outcomes.

Results and Discussion

Change in knowledge and attitude

The results in Table 2 highlight a remarkable improvement in both knowledge and attitude scores after the training programmes.

In Goat Management, the knowledge score improved from 13.20 to 22.65, showing a 71.59% increase, while attitude improved by 65.43%. This indicates that livestock-related trainings effectively addressed practical gaps in farmers' knowledge, confirming earlier findings of Patil *et al*. (2020) [4], where goatery training enhanced management skills and confidence among small farmers. In Poultry Production, the knowledge gain was 69.66%, and the attitude gain was 75.98%, suggesting a strong acceptance of poultry as a supplementary income source. The Cereals Processing training exhibited one of the highest attitude gains (88.22%) and a knowledge improvement of 74.94%. This reflects the increasing interest in value addition and agri-processing among farmers, aligning with studies of Meena *et al*. (2017) [3], which emphasized the importance of training in agri-business. Dehydration of Fruits and Vegetables recorded the highest knowledge improvement (89.58%) and an attitude gain of 81.31%, confirming the relevance of food processing trainings in generating rural entrepreneurship (Singh *et al*., 2019) [8]. Millet Farming showed an 80.32% knowledge gain and 88.89% attitude gain, the latter being the highest among all trainings. This reflects the renewed emphasis on millets as "nutri-cereals" under national policies, also reported by Yadav & Singh (2020) [11]. Natural Farming (for Krishi Sakhi) displayed a 73.89% knowledge gain and 69.31% attitude gain, proving that women-centered programmes are effective in creating sustainable farming mindsets. Entrepreneurial Capacity Building resulted in a 77.24% knowledge improvement and 87.69% attitude improvement, confirming the crucial role of entrepreneurship trainings in rural development (Sharma *et al*., 2021) [6].

On average, the knowledge gain was 76.75%, and the attitude gain was 79.55%, indicating that the KVK training methodology was highly effective across multiple domains.

Profile of the Respondents

The profile analysis (Table 3) provides insights into the backgrounds of the 211 participants. A significant proportion (31.43%) had high school education, while 22.38% were graduates or above. This educational profile indicates a reasonable literacy base among trainees, which facilitates better absorption of technical knowledge. Similar trends were reported by Singh & Kaur (2018) [7], where education positively influenced training outcomes. About 35.29% had 6-10 years of farming experience, while 30.64% had more than 11 years. This shows a balanced mix of experienced and semi-experienced farmers, ensuring both openness to innovation and practical application capacity. The majority (27.64%) had semi-medium holdings, followed by medium (24.22%) and large farmers (22.67%). This distribution implies that training impacts extended beyond marginal farmers to commercially oriented groups, supporting findings by Deshmukh *et al*. (2018) [1]. Most farmers (28.48%) had incomes between ₹2-2.5 lakh per annum, suggesting moderate financial stability. Higher income groups often demonstrated greater adoption willingness (Kumar *et al*., 2015) [2]. 36.52% were in the high category, followed by 28.79% moderate. The presence of 20% participants in very high and very low groups reflects inclusivity of the training design. About 55% of farmers fell in high and very high categories, which explains the strong responsiveness to new technologies and entrepreneurship. Around 33.81% of trainees had moderate orientation, while 27.62% were low. This indicates the necessity of training to shift farmers toward more scientific approaches. The majority (38.10%) had high motivation, meaning they actively sought income-enhancing activities. About 24.29% were in high risk preference, and 16.19% in very high. This reveals that a considerable number of trainees were willing to try innovative practices and enterprises. This socio-economic background explains the strong positive response to trainings.

Training Satisfaction

The data related to Training satisfaction analysis presented in Table 4 revealed that most participants were fully satisfied with different aspects of training. In case of Technical Competence; Field visits (76.09% fully satisfied) and subject matter (77.95%) were highly appreciated. Skill development scored lower (53.73% fully satisfied), indicating scope for further hands-on practice. With reference to Facilities Provided; Classroom facilities (93.79% fully satisfied) and boarding arrangements (88.20%) scored high, while library facilities received the least satisfaction (22.36%). This suggests strengthening of learning resource centers. In case of Communication Mode; Over 90% of participants were satisfied with free exchange of ideas, clarity of information, and training methods, confirming the interactive pedagogy.

The mean overall satisfaction score (Table 5) was 4.08/5, reflecting very high acceptance. Similar findings were reported by Rathod *et al*. (2012) [5], where infrastructure and participatory methods significantly influenced satisfaction.

Training Effectiveness

As evident from data in Table 6, the Topics covered were

considered complete by 88.10% participants, with a high rating of 4.44/5. Utility of topics was rated most useful by 80% of trainees. Relevance of lectures scored the highest at 4.67/5, indicating the training content was contextually appropriate. Fulfillment of expectations was complete for only 54.76%, suggesting the need to align training content more closely with participant aspirations. Practical orientation scored lower (3.83/5), as only 51.90% felt the training was fully practical. This indicates the need for more experiential modules, a challenge also emphasized by Tripathi *et al*. (2021) [10].

As depicted in Table 7, Quality of training was rated good by 89.05%, with an average score of 4.11/5. The overall effectiveness rating stood at 4.22/5, demonstrating the robust impact of the KVK's training methodology.

Correlates of Training Impact

As evident from Correlation (Table 8), Education (r = 0.563 with attitude, 0.335 with knowledge) shows higher education enhanced understanding and application of training. Socio-economic status (r = 0.504 with attitude, 0.445 with knowledge) revealed that economically better-off farmers were more receptive. Farm size and income showed moderate correlations, indicating resource-rich farmers adopt practices faster. Innovativeness (r = 0.433 with attitude) and risk preference (r = 0.423 with attitude) were strong predictors of adoption behavior.

These results are consistent with Kumar *et al*. (2015) [2] and Singh & Kaur (2018) [8], who reported education and socio-economic conditions as key determinants of training effectiveness.

Table 2: Per cent change in knowledge and attitude

Sr	indicators	Participants	Knowledge Score obtained		Per cent change over before	Attitude Score obtained		Per cent change over before
A	Training	Total	Before	After		Before	After	
01	Goat Management	27	13.20	22.65	71.59	10.46	17.30	65.43
02	Poultry Production	33	13.21	22.41	69.66	10.66	18.76	75.98
03	Opportunity of Cereals Processing	26	13.19	23.08	74.94	8.76	16.49	88.22
04	Dehydration of Fruits and Vegetable Processing	34	12.60	23.89	89.58	9.74	17.66	81.31
05	Millet farming	32	12.27	22.13	80.32	7.02	13.26	88.89
06	Natural Farming (for Krishi Sakhi)	31	13.09	22.76	73.89	9.32	15.78	69.31
07	Entrepreneurial capacity building	28	12.18	21.59	77.24	9.42	17.68	87.69
Total		210						
Mean			12.82	22.64	76.75	9.34	16.70	79.55
Standard Deviation			0.46	0.73	6.66	1.22	1.79	9.56

Table 3: Profile of the respondents:

Sr	Profile	Number (N=210)	Percent	Mean	Standard Deviation
1	**Education**				
	Illiterate	5	2.38	9.81	3.78
	Functionally Literate	8	3.81		
	Primary	20	9.52		
	Middle School	36	17.14		
	High School	66	31.43		
	Junior College	28	13.33		
	Graduate and above	47	22.38		
2	**Experience**				
	Up to 5 Years	72	34.05	10.78	4.41
	6 to 10 years	74	35.29		
	11 Years and above	64	30.64		
3	**Farm size**				
	No Land	13	4.04	8.16	4.23
	Marginal	23	7.14		
	Small	46	14.29		
	Semi-medium	89	27.64		
	Medium	78	24.22		
	Large	73	22.67		
4	**Annual income**				
	Upto 50000	17	8.05	285689.6	163533.1
	50001 to 100000	29	13.62		
	100001 to 150000	34	16.40		
	150001 to 200000	29	13.62		
	200001 to 250000	60	28.48		
	250001 to 300000	36	17.33		
	300001 and above	5	2.17		
5	**Socio-economic status**				
	Very low	7	3.40	10.13	4.93
	Low	30	14.24		

	Moderate	61	28.79		
	High	77	36.52		
	Very High	35	16.71		
6	**Innovativeness**				
	Very low	0	0.00		
	Low	34	16.40		
	Moderate	59	28.17	21.51	6.95
	High	71	33.74		
	Very High	46	21.36		
7	**Scientific orientation**				
	Very low	26	12.38		
	Low	58	27.62		
	Moderate	71	33.81	17.52	8.72
	High	34	16.19		
	Very High	21	10.00		

Sr	Profile	Number (N=210)	Percent	Mean	Standard Deviation
8	**Economic motivation**				
	Very low	3	1.43		
	Low	31	14.76		
	Moderate	72	34.29	21.93	5.41
	High	80	38.10		
	Very High	24	11.43		
9	**Risk preference**				
	Very low	16	7.62		
	Low	37	17.62		
	Moderate	72	34.29	18.71	7.66
	High	51	24.29		
	Very High	34	16.19		

Table 4: Training satisfaction

Sr	Training Satisfaction indicators	Fully Satisfied		Partially Satisfied		Not Satisfied		Dissatisfied	
		No	%	No	%	No	%	No	%
A	**Technical Competence**								
01	Technical / subject matter	251	77.95	53	16.46	3	0.93	15	4.66
02	Field work / visit	245	76.09	74	22.98	2	0.62	1	0.31
03	Practical work	203	63.04	69	21.43	41	12.73	9	2.80
04	Skill development	173	53.73	57	17.70	63	19.57	29	9.01
05	Setting of ideal example	192	59.63	113	35.09	10	3.11	7	2.17
06	Training techniques	212	65.84	73	22.67	32	9.94	5	1.55
B	**Facilities provided**								
01	Boarding arrangements	254	88.20	21	6.52	17	5.28	0	0.00
02	Lodging arrangements	**Not Applicable**							
03	Classroom facilities	264	93.79	7	2.17	13	4.04	0	0.00
04	Transport facilities	249	77.33	56	17.39	17	5.28	0	0.00
05	Recreational facilities	**Not Applicable**							
06	Library facilities	72	22.36	69	21.43	103	31.99	78	24.22
C.	**Communication Mode**								
01	Exchange ideas freely	261	90.37	18	5.59	7	2.17	6	1.86
02	Clarity of information	256	88.82	29	9.01	5	1.55	2	0.62
03	Medium of instruction	237	82.92	46	14.29	9	2.80	0	0.00
04	Training methods	263	87.89	32	9.94	7	2.17	0	0.00
05	Media mix	266	85.71	43	13.35	3	0.93	0	0.00
Mean		74.24		15.73		6.87		3.15	

Table 5: Training satisfaction Ratings (Score Out of 5)

Sr	Training Satisfaction indicators	Rating Score/5	Overall Rating
A	**Technical Competence**		
01	Technical / subject matter	4.02	4.13/05
02	Field work / visit	4.42	
03	Practical work	3.98	
04	Skill development	4.21	
05	Setting of ideal example	4.11	
06	Training techniques	4.02	

B	Facilities provided		
01	Boarding arrangements	4.63	4.11/05
02	Lodging arrangements	Not Applicable	
03	Classroom facilities	4.86	
04	Transport facilities	3.92	
05	Recreational facilities	Not Applicable	
06	Library facilities	3.03	
C.	**Communication Mode**		
01	Exchange ideas freely	4.32	4.02/05
02	Clarity of information	4.24	
03	Medium of instruction	3.64	
04	Training methods	3.78	
05	Media mix	4.12	
Overall Rating			4.08/05

Table 6: Training effectiveness

Sr	Training effectiveness indicators	Fully Satisfied		Partially Satisfied		Not Satisfied		Dissatisfied	
		No	%	No	%	No	%	No	%
1	Topics covered	**Complete (2)**		Partial (1)		No (0)			
		185	88.10	21	10.00	3	1.43	1	0.48
2	Utility of topics	Most Useful (2)		Somewhat Useful (1)		Not Useful (0)			
		168	80.00	37	17.62	2	0.95	3	1.43
3	Relevance of lectures	Most relevant (2)		Somewhat relevant (1)		Not relevant (0)			
		158	75.24	47	22.38	2	0.95	3	1.43
4	Fulfillment of expectation	Complete (2)		Partial (1)		No (0)			
		115	54.76	61	29.05	16	7.62	18	8.57
5	Practical Orientation	Complete (2)		Partial (1)		No (0)			
		109	51.90	48	22.86	24	11.43	29	13.81
6	Relevance of study material	Most relevant (2)		Somewhat relevant (1)		Not relevant (0)			
		151	71.90	40	19.05	17	8.10	2	0.95
7	Quality of training	Good (2)		Fare(1)		Poor (0)			
		187	89.05	17	8.10	4	1.90	2	0.95
Average		73.82		17.97		4.39		3.82	

Table 7: Rating of Training Effectiveness

Sr	Training Satisfaction indicators	Rating Score/5	Overall Rating
01	Topics covered	4.44	4.22/05
02	Utility of topics	4.34	
03	Relevance of lectures	4.67	
04	Fulfillment of expectation	4.07	
05	Practical Orientation	3.83	
06	Relevance of study material	4.05	
07	Quality of training	4.11	

Table 8: Correlates

Sr	Characteristics	Correlates			
		Attitude	Knowledge	Training Satisfaction	Training Effectiveness
1	Education	0.563**	0.335**	0.424**	0.213*
2	Experience	-0.202*	-0.193*	0.332**	0.234**
3	Farm Size	0.439**	0.474**	0.313**	0.223*
4	Annual income	0.364**	0.473**	0.369**	0.424**
5	Socio-economic status	0.504**	0.445**	-0.393**	-0.236**
6	Innovativeness	0.433**	0.363**	0.243**	0.321**
7	Scientific orientation	0.413**	0.254**	0.211*	0.334**
8	Economic motivation	0.332**	0.423**	0.304**	0.421**
9	Risk preference	0.423**	0.314**	0.343**	0.322**
10	Attitude		0.354**	0.353**	0.213*
11	Knowledge			0.338**	0.239**
12	Training Satisfaction				0.249**
13	Training Effectiveness				

Summary and Conclusion

The study demonstrated that KVK Akola's training programmes significantly improved farmers' knowledge, attitudes, and skills. Participants were highly satisfied with technical content, facilities, and communication. Education, socio-economic status, and farm size emerged as key

determinants of impact. Future programmes should enhance practical orientation, resource material quality, and follow-up support for sustained adoption. Improving facilities like libraries will further strengthen outcomes.

References

1. Deshmukh R, Shinde P, Pawar S. Impact of farmer training programmes on adoption of improved agricultural practices. Indian J Ext Educ. 2018;54(2):112-6.
2. Kumar A, Singh R, Jha S. Determinants of knowledge gain in vocational training programmes. J Community Mobil Sustain Dev. 2015;10(1):45-51.
3. Meena MS, Singh R, Chauhan A. Effectiveness of agricultural training programmes on skill enhancement among rural youth. Int J Agric Ext. 2017;5(1):23-9.
4. Patil SS, Kumbhare NV, Tiwari R. Capacity building through skill development training in agriculture: A case study. Agric Ext Rev. 2020;32(3):56-61.
5. Rathod P, Nikam T, Dhandi S. Farmers' satisfaction with agricultural training programmes. J Rural Dev. 2012;31(4):473-82.
6. Sharma V, Yadav R, Mehta S. Effectiveness of KVK training programmes in farmers' knowledge and adoption. Indian Res J Ext Educ. 2021;21(2):87-92.
7. Singh A, Kaur J. Socio-economic determinants of training effectiveness among farmers. J Ext Syst. 2018;34(2):67-75.
8. Singh P, Kumar N, Gupta R. Role of KVKs in capacity building and agricultural transformation. Indian J Ext Educ. 2019;55(3):14-20.
9. Thakare UG, Ingle PO. Development and Standardization of Socio-Economic Status Scale. Indian J Ext Educ. 2007;4:8-16.
10. Tripathi S, Choudhary K, Mishra H. Assessing the effectiveness of capacity-building programmes in agriculture. Int J Ext Educ. 2021;17(1):32-9.
11. Yadav R, Singh S. Farmers' training and knowledge gain in agriculture: An evaluation study. J Agric Ext Manag. 2020;21(1):45-52.