

Subject Matter Specialists - Boon for KVK Activities

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ABSTRACT

To impart training to the practicing farmers / farm women, rural youth and field level extension functionaries by following the method of "teaching by doing" and "learning by doing". Krishi Vigyan Kendras are playing a major role by engaging Subject Matter Specialists. The Education Commission (1964-66) recommended that a vigorous effort be made to establish specialized institutions to provide vocational education in agriculture and allied fields at the pre and post-matriculate levels to cater the training needs of a large number of boys and girls coming from rural areas. The commission further suggested that such institutions be named as 'Agricultural Polytechnics'. Finally, the ICAR mooted the idea of establishing Krishi Vigyan Kendras (Agricultural Science Centres) as innovative institutions for imparting vocational training to the practicing farmers, school drop-outs and field level extension functionaries. Training is a circular process that begins with needs identification and after a number of steps ends with evaluation of the training activity. A change or deficiency in any step of the training process affects the whole system, and therefore it is important for a trainer to have a clear understanding about all phases and steps of the training process. Subject matter specialists (SMS) are the key persons who make use of all the phases of training management pattern for organizing a training programme effectively at KVK with this background this study was conducted at Tamil Nadu state. 60 trainees were selected for this study from TNAU, TANUVAS and NGO to analyse the influencing pattern of SMS on the activities of KVK.

Keywords: KVK, Commission, Extension, SMS, Polytechnics.

INTRODUCTION

If you can, give him something better, if you can, get hold of a man where he stands and give him a push onwards, do so, but do not destroy what he is"

- SWAMI VIVEKANANDA

Research in Indian agriculture has shown new possibilities of increasing agricultural production. But the effective planned action depends on the translation of the viable technology to those for whom it is meant.

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It is a proven fact that adoption of a technology can be hastened by identifying the needs of the clients and imparting to them the needed training. Imparting the needed training effectively to all those who need the same, therefore, is so essential for accelerating the process of adoption which leads to increased agricultural production. Several organized efforts have been made to disseminate the agricultural technologies at great speed. One of the most important components of these efforts has been the programme of farmers' training which is being conducted all over the country. Of late, it has been realized that farmers' training will have to be directed towards backward areas and weaker sections of rural sector.

With this in view, the Indian Council of Agricultural Research (ICAR) has established a series of Krishi Vigyan Kendras (KVKs) as an attempt to educate the farmers especially weaker section in new methods of all aspects related to agricultural production.

Objectives:

1. To study the profile of KVKs subject matter specialists and unearth the relationship between their profile and training management pattern.

MATERIALS AND METHODS

Ex-post facto research design was used in the present investigation. Robinson (1976) defined ex-post facto research design as any systematic empirical enquiry in which the independent variables have not been directly manipulated because they have already occurred or they are inherently not manipulable. He further stated that ex-post facto studies could be divided to deduce theories, identify behavior phenomenon and explore conditions under which a phenomenon occurs.

Conceptual changes over a period of time

The Mohan Sinha Mehta Committee (1974) enunciated the following three basic concepts of krishi vigyan kendra.

- The kendra will impart learning through work-experience and hence will be

concerned with technical literacy, the acquisition of which does not necessarily require as a pre-condition for the ability to read and write.

- The kendra will impart training to only those extension workers who are already employed or too the practicing farmers and fishermen. In other words, the kendra will cater to the needs of those who are already employed or those who wish to be self employed.
- There will be no uniform syllabus for a kendra. The syllabus and programme of each kendra will be tailored to the felt needs, natural resources and the potential for agricultural growth in that particular area.

Keeping in view, the adaptability of the proposed design with respect to the type of variables under consideration, size of respondents and phenomenon to be studied, the ex-post facto design was selected as an appropriate research design.

Locale of the study

Tamilnadu state was purposively selected for the study as the researcher belongs to the same state.

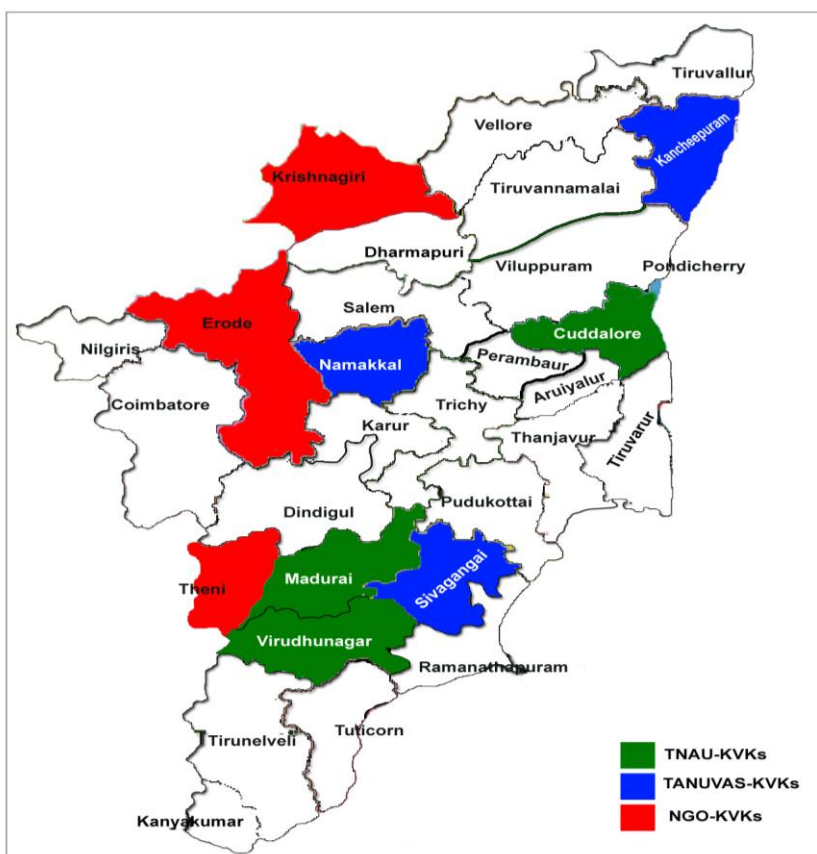
Sampling procedure

Selection of KVKs

In Tamil Nadu, there are 30 KVKs in operation. Among the 30 KVKs, 14 KVKs are managed by Tamil Nadu Agricultural University, Coimbatore, 3 KVKs under Tamil Nadu Veterinary and Animal Sciences University, Chennai, 11 KVKs are being managed by the NGO's / trust and 2 KVKs belonged to Deemed University. All the 30 KVKs have been operated with the financial support of ICAR and the mandates set by the ICAR, New Delhi. These KVKs comes under the Zone VIII, Zonal Project Directorate, Bangalore, Karnataka state and nine KVKs were selected for the study and it is presented with address details in table 1 (Fig. 1).

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Fig. 1. Map showing the study area



Subject matter specialists sample

Subject matter specialists are the key persons who make use of all the phases of training

management pattern for organizing a training programme effectively.

Table 1: List of KVKs selected for the study

S. No.	Name of the KVKs	Year of establishment
A.	Tamilnadu Agricultural University, Coimbatore	
1.	KVK, Aruppukkottai - 626 107 Virudhunagar district, Tamilnadu	2006
2.	KVK, Madurai - 625 104 Madurai district, Tamilnadu	2004
3.	KVK, Viridhachalam - 606 001 Cuddalore district, Tamilnadu	1985
B.	Tamilnadu Veterinary and Animal Sciences University, Chennai	
1.	KVK, Kundrakudi - 630 206 Sivagangai district, Tamilnadu	1996
2.	KVK, Namakkal - 637 002 Namakkal district, Tamilnadu	1993
3.	KVK, Kattupakkam - 603 203 Kancheepuram district, Tamilnadu	1985
C.	Non-Governmental organisation	
1.	KVK, Kamatchipuram - 625 520 Theni district, Tamilnadu	1995
2.	Dr. Perumal KVK, Elumichangiri - 635 120 Krishnagiri district, Tamilnadu	1992
3.	MYRADA KVK, Gopichettipalayam - 638 453 Erode district	1994

Three KVKs each from TNAU, TANUVAS and NGO's were selected for the study. Hence, all the subject matter specialists working in the nine KVKs were selected as sample for the

present study. Finally 50 subject matter specialists constitute the total for the study and it is presented in table 2.

Table 2: Subject matter specialists sample for the study

S. No.	Name of the host Institution	No. of KVKs	No. of SMSs selected
1.	TNAU, Coimbatore	3	18
2.	TANUVAS, Chennai	3	17
3.	NGO's	3	15
	Total	9	

RESULTS AND DISCUSSION

The findings of the analysis along with the discussion are presented in the following subheadings.

Subject matter specialist sample

Profile of subject matter specialists

In a training institute, subject matter specialists are the most coveted segment. They have a definite role in making the training a rich dividend pay activities. In order that their potential is fully exploited, it is important to have a clear understanding of their profile. Hence, an attempt was made to know the profile of the subject matter specialists on the following selected characteristics.

1. Age
2. Academic qualification

3. Training experience in KVKs
4. Trainings participation
5. Instructional competency
6. Role performance
7. Subject matter specialists orientation
8. Perception on workload
9. Achievement motivation
10. Level of aspiration
11. Job satisfaction

1. Age

Age refers to chronological age of the subject matter specialists. Based on that the subject matter specialists were categorized into young, middle and old categories. The distribution of subject matter specialists under these categories is shown in table 5.

Table 3: Distribution of subject matter specialists according to their age n = 50

S. No.	Category	Number	Per cent
1.	Young-upto 35 years	20	40.00
2.	Middle-above 36-upto 50 years	29	58.00
3.	Old-more than 51 years	1	2.00
	Total	50	100.00

It is evident from the table 3 that 58.00 per cent of subject matter specialists were middle aged (36-50 years) followed by 40.00 per cent in young (upto 35 years) and very small percentage (2.00 per cent) was in old aged category.

The composition of three age categories namely young, middle and old revealed that majority were between 36 to 50 years of age.

2. Academic qualification

Academic qualification is an important attribute which affect the training management pattern of the subject matter specialists. The subject matter specialists are categorized according to their academic qualification and the data is presented in table 4.

Table 4: Distribution of subject matter specialists according to their academic qualification
(n = 50)

S. No.	Category	Number	Per cent
1.	Post graduation	4	8.00
2.	Ph.D	45	90.00
3.	PDF	1	2.00
	Total	50	100.00

Majority (90.00 per cent) of the subject matter specialists were having doctorate degree and 8.00 per cent were post graduate. Only 2.00 per cent had post doctoral qualification.

Among the KVKs selected except NGO-KVKs, the entry level in TNAU and TANUVAS was fixed as Ph.D. That could be the possible reason for majority of the subject matter specialists observed with Ph.D qualification. Though who entered with post graduate degree also required Ph.D

subsequently with the requirement for further elevation in the universities which was not insisted in NGO-KVKs and hence such an outcome.

3. Training experience

Training experience is also a good contributor and determinant of subject matter specialist's performance. It was measured as the number of years of experience a subject matter specialist possessed and the data is presented in table 5.

Table 5: Distribution of subject matter specialist according to their training experience in KVKs
(n = 50)

S. No.	Category	Number	Per cent
1.	Less than 5 years	23	46.00
2.	Above 5 and upto 10 years	24	48.00
3.	More than 10 years	3	6.00
	Total	50	100.00

It is apparent from the table5 that nearly half (48.00 per cent) of the subject matter specialists had 5 to 10 years of experience in training followed by almost equal per cent (46.00 percent) with less than 5 years of training experience. More than 10 years of experience was seen with only 6.00 per cent. Experience acquires a special significance as far as efficiency is concerned. It is revealed that nearly 50.00 per cent of subject matter specialists were having 5 to 10 years of experience in training / extension. It was observed that nearly half of the subject matter specialists were between the age of 36-50 years, which did not reflect on their training

experience. Their service in KVK and training related areas might be less as their positions are transferrable in SAUs. That could be the possible reason for less experience. It was expected that the length of experience would influence his training management pattern due to better familiarity with in and out of his job. These results were in line with the findings of Reddy (1993) and Reddy (2002).

4. Trainings participation (Last three years pertaining to KVK)

The subject matter specialists are categorized according to their participation in training within and outside the state and the data is presented in table 6.

Table6. Distribution of subject matter specialists according to their trainings participation

(n = 50)

S. No.	Category (No. of trainings)	Within state		Outside state	
1.	Less than 2	14	28.00	16	32.00
2.	2 - 5	32	64.00	34	68.00
3.	More than 5	4	8.00	-	-
	Total	50	100.00	50	100.00

Nearly two-thirds (64.00 per cent) and 68.00 per cent of subject matter specialists had undergone 2 to 5 trainings within and outside the state respectively. Those who had less than 2 trainings was 28.00 per cent and 32.00 per cent within and outside the state respectively. Only 8.00 per cent had undergone more than 5 trainings within state where as outside the state, it was found nil.

The number of training the subject matter specialist had undergone in his carrier indicates his exposure to various areas of training. Inorder to equip with latest techniques some trainings concerned with the mandate were made as compulsory for the subject matter specialists and other trainings

depends on their interest. Also the organization in which they are working may select the subject matter specialists and sent them to attend the trainings that reflects on the result. Which may positively improves the activities of KVK.

5. Instructional competency

The subject matter specialists mostly possess competencies for better output in their performance. 14 different types of competencies were measured with a scale developed by Patricia and Lagan (1988) and subject matter specialists were classified into low, medium and high instructional competency categories based on the cumulative frequency method.

Table 7: Distribution of subject matter specialists according to their instructional competency (n=50)

S. No.	Category	Number	Per cent
1.	Low competency	10	20.00
2.	Medium competency	27	54.00
3.	High competency	13	26.00
	Total	50	100.00

The data presented in table 7 reveals that 54.00 per cent of subject matter specialists had medium level of instructional competency followed by 26.00 per cent that of high level. Only 20.00 per cent had low level of instructional competency.

The high academic qualification and more years of training experience was observed with the subject matter specialists, which certainly played a role in improving their instructional competency. In universities most of them

working as teachers and their roles are transferrable. Hence, such competency level was observed in the table. These results were in line with the findings of Mahapatra (1987) and Reddy (2002).

6. Role performance

The subject matter specialists are categorized as per cumulative frequency method according their extent of role performance in training activities and the data is presented in table.

Table 8: Distribution of subject matter specialists according to their role performance (n=50)

S. No.	Category	Number	Per cent
1.	Low role performance	11.00	22.00
2.	Medium role performance	18.00	36.00
3.	High role performance	21.00	42.00
	Total	50	100.00

It is found that 42.00 per cent of subject matter specialists with high role performance followed by 36.00 per cent of subject with medium role performance. Low role performance was seen with 22.00 per cent only.

Every subject matter specialists has to play a defined role in the KVK based on his area of specialization. No one be devoid of

such performance and hence 78.00 per cent of subject matter specialists were noticed with moderate to high role performance.

7. Subject matter specialists orientation

The subject matter specialists are oriented towards training management activities according to their job nature. They were categorised into four types of orientations and the data is presented in the table 9.

Table 9: Distribution of subject matter specialists according to their orientation (n=50)

S. No.	Category	Number	Per cent
1.	Care taker	2	4.00
2.	Educator	8	16.00
3.	Evangelist	12	24.00
4.	Innovator	28	56.00
	Total	50	100.00

It is evident from the table 9 that 56.00 per cent were found to be innovators. Their orientation as evangelist, educator, care taker was found to be 24.00 per cent, 16.00 per cent and 4.00 per cent respectively.

The subject matter specialist and his orientation has a greater role in training function. The data on subject matter specialists orientation shows that majority were innovators. As most of the subject matter specialists were new recruits they want to change systems, procedures and technologies in the organization and adopt a range of interventionists approaches. The findings of the study conducted by Reddy (2002) reveals that most of the subject matter specialists of

ICAR see the need for training to maintain the present systems, procedures and technologies in the organizations, but adopt a range of interventionists approaches. He suggested that evangelist and innovator type of orientation might be required for subject matter specialists.

8. Perception on workload

Perception on workload was measured in terms of the extent of workload in the areas like administration, office, training, research, extension and seed / seedling production. The subject matter specialists were categorized into light, optimum and heavy workload perceivers based on the cumulative frequency method and the data is presented in table 10.

Table 10: Distribution of subject matter specialists according to their perception on workload (n=50)

S. No.	Category	Number	Per cent
1.	Light workload	11	22.00
2.	Optimum workload	31	62.00
3.	Heavy workload	8	16.00
	Total	50	100.00

Optimum level workload was perceived by 62.00 per cent of subject matter specialists. Light and heavy workload was perceived by 22.00 per cent and 16.00 per cent of subject matter specialists respectively.

The work commitment and nature of work were at the disposal of subject matter specialists and hence such a response. This

finding is in agreement with the results of Reddy (1998) and Reddy (2002) who also indicated the similar results.

9. Achievement motivation

The subject matter specialists were categorized into three according to their achievement motivation. Cumulative frequency method was used for categorization and the data is presented in table 11.

Table 11: Distribution of subject matter specialists according to their achievement motivation (n=50)

S. No.	Category	Number	Per cent
1.	Low achievement motivation	10	20.00
2.	Medium achievement motivation	18	36.00
3.	High achievement motivation	22	44.00
	Total	50	100.00

It is apparent from the table 11 that 44.00 per cent of subject matter specialists had high achievement motivation followed by medium and low achievement motivation 36.00 per cent and 20.00 per cent respectively.

It could be inferred that subject matter specialists had medium to high achievement motivation. This might be due to the fact that the subject matter specialists were performing conflicting roles through training work, attending seminars and conferences. As subject matter specialists they have to fulfill the mandate of KVK in addition to the required and local requirements of the centre concerned. As for as those who are working in university KVKs concerned, weightage has been given to the achievements of subject

matter specialists during promotion. Their achievements may be pertaining to their assigned tasks and also for their personal accomplishments. Inorder to excel in their performance majority were seen with medium to high achievement motivation. The finding is in concurrence with the results reported by Rani (1985), Reddy (1993) and Reddy (2002).

10. Level of aspiration

Level of aspiration was measured by the points on the ladder where the subject matter specialists stands economically, professionally and academically at present movement, five years ago and five years ahead. The subject matter specialists were categorized according to their level of aspiration in three areas and the results are presented in table 12.

Table 12: Distribution of subject matter specialists according to their level of aspiration (n = 50)

S. No.	Category	Economically		Professionally		Academically	
		Number	Per cent	Number	Per cent	Number	Per cent
1.	Low level	20	40.00	15	30.00	13	26.00
2.	Medium level	13	26.00	21	42.00	19	38.00
3.	High level	17	34.00	14	28.00	18	36.00
	Total	50	100.00	50	100.00	50	100.00

Economic based aspiration was found to be low with 40.00 per cent of the subject matter specialists followed by high and medium level, 34.00 per cent and 26.00 per cent respectively. Whereas, professionally their aspiration was medium level 42.00 per cent followed by low and high level 30.00 per cent and 28.00 per cent respectively. Almost equal proportion of the subject matter specialists had medium (38.00 per cent) and high level (36.00 per cent) aspiration academically.

In general, it could be inferred that more than 60.00 per cent of the subject matter specialist's level of aspiration was medium to

high level in all the three aspects studied. It was observed from table that 80.00 per cent of the subject matter specialists possessed medium to high level achievement motivation which is coincided with their level of aspiration and hence such an outcome.

11. Job satisfaction

Job satisfaction is also one of the main contributing factor in effective organization of training programme. The subject matter specialists were categorized into three according to their job satisfaction. Cumulative frequency method was employed and the responses have been presented in table 13.

Table 13: Distribution of subject matter specialists according to their job satisfaction (n = 50)

S.No.	Category	Number	Per cent
1.	Low job satisfaction	10	20.00
2.	Medium job satisfaction	32	64.00
3.	High job satisfaction	8	16.00
	Total	50	100.00

Nearly two-thirds (64.00 per cent) of the subject matter specialists had medium job satisfaction followed by 20.00 per cent with low job satisfaction and 16.00 per cent with high job satisfaction.

Almost 80.00 per cent of them had medium to high level of job satisfaction. Job satisfaction is primarily a result of high productivity. Usually subject matter specialists attain job satisfaction not by more salaries but due to their commitment and zeal in extending need based inputs and activities. In the training, the job satisfaction of the subject matter specialists progressively increases when he gets applaus from the trainees and recognition from the concerned officials. The results on the respondents role performance

instructional competency, achievement motivation, perception on workload etc. as indicated in the study reflected on their job satisfaction which leads to smooth functioning of KVK. The present findings are supported by the reports of Prabha (1994) and Reddy (2002).

CONCLUSION

The system of transfer of technology from research stations to the farming community has played an important role in modernizing agriculture. In the era of fast changing technology, training is assuming an ever increasing importance in the agriculture and allied sectors. KVKs are playing a vital role in

this regard. The success of training is mainly depend on how it is managed by the subject matter specialists. The subject matter specialist have to play a crucial role in management of training programmes in KVKs. They should be above to impart quality training by taking care of all the essential components for organizing a successful training programme. The quality training program directed towards the rural population further it offers advice and information to help them to solve their problems and also aims to increase the efficiency of the farm family for doubling the production and tripling the farm income.

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