Role Perception, Role Performance and Constraints of Trainers in KVKs Haryana

Sulekha¹, Dileep Gupta², Prakash Chandra³, Amit Kumar⁴, Prem Nath⁵, Kamlesh Kumar Yadav⁶ and Sudershan Mehta⁷

¹Department of Agriculture, General Shivdev Singh Diwan Gurbachan Singh Khalsa College, Patiala, Punjab – 147001, India.
²Department of Agriculture, Extension SPRPD College Gahrauli, Hamirpur, U.P, India.
³Department of Agriculture, Programme Assistant (Fisheries) Krishi Vigyan Kendra, Sitamarhi, Bihar - 843320, India.
⁴Department of Agriculture, N. J. (P.G.) College Mawana, U.P., 250401, India.
⁵Department of Agriculture, Technical Assistant Ayodhya, U.P, India.
⁶Department of Agriculture, Mata Gujri College, Fateghar Sahib Punjab, 140407, India.
⁷Directorate of Education, CCSHAU, Hisar, Haryana – 125004, India.

Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/CJAST/2020/v39i2730914

Editor(s):
(1) Dr. Ritu Singh, G. B. Pant University of Agriculture and Technology, India.
Reviewers:
(1) Jasmine O. Tamunosiki-Amadi, Niger Delta University, Nigeria.
(2) Oganezi, Bethel (Ven), Alex Ekwueme Federal University Ndufu Alike Ikwo, Nigeria.
(3) Azam Khani, Isfahan (Khorasgan) Islamic University, Iran.
Complete Peer review History: http://www.sdiarticle4.com/review-history/57763

Original Research Article

ABSTRACT

The present investigation aimed at analyzing the role perception, role performance and constraints of trainers in KVKs of Haryana state. Agro climatically Haryana is divided into two zones i.e., western and eastern zone. 4 Krishi Vigyan Kendra (KVKs), two each from western zone i.e. KVK Bhiwani and KVK Fatehabad whereas KVK Rohtak and KVK Jhajjar from eastern zone were selected. Overall 47.4 per cent trainers had high followed by medium (36.8%) role perception. Regarding role performance of the respondent’s irrespective of zones and KVKs had medium (52.6%) followed by high (36.8%) level of role performance. All the extension personnel of the selected KVKs who were directly involved in conduct of training programmes were selected for the study. There were, four (Bhiwani), six (Fatehabad), five (Rohtak) and four (Jhajjar) extension personnel respectively. Thus,
19 extension personnel were interviewed. Major constraints experienced by the trainers were: lot of paper work and reporting and feeling additional burden of work and responsibilities due vacant posts lying in each KVK.

Keywords: Role perception; role performance; constraints; trainers, Krishi Vigyan Kendras.

1. INTRODUCTION

In each Krishi Vigyan Kendras (KVKs), trainers are involved in preparation /assisting in all the reports of KVK, implementing FLDs along with other trainers of KVK, Organizing, and conducting training programmes for farmers and extension functionaries, extension activities like field days, field visit, diagnostic fields visits, participate in exhibitions, conducting method demonstrations. They are involved in attending meetings related to ATMA, working in collaboration with all line departments, contact with all leading NGOs, conducting scientific evaluation (OFT), demonstration (FLD) and training of extension personnel's as well as rural youth. Trainer provide direct interaction between farmers and scientists for effective technology dissemination and adoption [7]. Trainers of the KVKs must be competent to perform such multidimensional tasks and improve their work effectiveness which would make Indian frontline extension system more visible, vibrant, demand driven and client oriented.

Analysis of role performance of trainers of KVKs become imperative for evaluating the overall output of KVKs. Many KVKs lack adequate resources had inexperienced, staff and training courses were under subscribed, raising doubts about their relevance. It was suggested to initiate an objective and scientific evaluation of all KVKs so that a case-by-case assessment could be made to guide the type and level of any further support.

Although trainers of KVKs are working day and night for the fulfilment of aspiration of farmers and authorities, but there are many constraints which affect their working adversely. The important constraints considered by the functionaries of the KVK were non availability of location specific, problem-oriented technologies, ‘lack of motivation among the farmers. Paucity of budget’ lack of transport facility and non-availability of inputs. To overcome the constraints as perceived by the functionaries working in KVKs, suggestions were invited and this includes increase in budget for training, timely availability of inputs, proper market facilities, working out proper cropping system and motivation of farm women to adopt new technological advancement [4][6][3].

KVKs are functioning since 1974 but in literature few evaluation efforts have been available to know the effectiveness of gender-wise performance of various training programmes organized by various KVKs. It is also important to study the opinion, expectations of beneficiaries (Male and Female) towards trainings and role perception, performance and constraints of trainers. Keeping these points in view, the present study was undertaken with the following objectives: To explore the role perception, role performance and constraints of the trainers.

2. METHODOLOGY

2.1 Selection of KVK Personnel

All the extension Personnel of the selected KVKs who were directly involved in conduct of training programmes were selected for the study. There were, (Bhiwani), (Fatehabad), (Rohtak) and (Jhajjar) extension personnel respectively. Thus, total 19 extension personnel were interviewed.

2.2 Variables and Their Measurement

In Independent variables, age, caste, year of experience, education and communication skill and in dependent variables, role perception and role performance were measured.

Role perception, role performance and constrained of trainers were taken as the dependent variables which were measured with the help of the well-structured schedule containing the battery of questions having relevance with dimensions of role perception and role performance. The role perception relates the way in which the trainers look at their job or duties.

2.3 Different Dimension of Role Perception and Performance

Seven dimensions of role perception and role performance as identified [5] were used; these
were namely (i) planning, (ii) organizing (iii) motivation, (iv) training (v) reporting (vi) evaluation and (vii) supporting activities. Each dimension consisted of different role/items. The instrument developed was administered to the respondents and responses were obtained on 3 point-continuum i.e., must do, should do and not do for role perception with weightage of 3, 2, and 1 respectively.

For role performance also responses were obtained on three point continuum namely always performed, seldom performed and never performed with weightage of 3, 2, and 1 respectively. The score for each dimension of role perception and role performance were counted and divided into low, medium and high categories. Further the score of each item were added to obtain the overall scores of role perception and role performance of the trainers separately. Accordingly, the respondents were categorized into low, medium and high groups.

2.4 Tools and Techniques of Data Collection

2.4.1 Construction of interview schedule

Two structured interview schedules were developed separately for trainers and beneficiaries in accordance with methodological procedure and objectives of the study. The data were collected personally by the researcher through well-structured pretested interview schedules.

2.5 Analysis and Interpretation of Data

The data were coded, classified, tabulated, analyzed and presented in such a way that it may give more pertinent, valid and reliable answer to the specific objective of the study.

3. RESULTS AND DISCUSSION

3.1 Role Perception, Role Performance and Constraints of the Trainers

In order to study the status of trainers in KVKs, information related to background profile, role perception, role performance, constraints experienced by trainers were compiled, analyzed and presented in Tables 1 to 5.

3.1.1 Background profile of the trainers

As regards profile of total nineteen trainers belonged to different KVKs, results indicated that more than half (52.6%) of the respondents were 41-50 years of age, followed by 51-60 (26.3%) and 30-40 years (21.0%). In respect to caste, 89.4 per cent were from general caste, scheduled caste and other backward caste (5.3% each). 100% trainers were Ph.D. had more than 10 years of service experience (68.4%) followed by less than 5 years (26.3%) and 5-10 years (5.3%).

Regarding communication skills which was studied in terms of communication ability and communication quality, results revealed that 52.6, 26.3% and 21.3 per cent trainers had medium, high and low communication ability respectively. Whereas 57.9 per cent had high communication followed by medium (26.3%) and low (15.8%) communication quality. Over all communication skill of 52.6 per cent respondents was high. It was followed by low (26.3%) and medium (21.1%) this is as expressed (Table 1).

3.2 Role Perceptions of Trainers

3.2.1 Role perception of trainers about different aspects of training

What trainers in KVKs perceived about their roles to be performed has been studied under role perception. Role perception of the trainers was measured in terms of seven aspects namely: planning, organizing, motivation, training, reporting, evaluation and supporting activities.

The data in Table 2 depicted that with regard to planning and evaluation (57.9% each) aspects irrespective of zones and KVKs, trainers perceived high role perception followed by medium (36.8% each) and low (5.3% each).

In respect to organizing and training aspects, it is apparent from the data that out of total sample, 47.4 per cent each trainers had perceived medium role perception. This was followed by high (42.1% and 36.8%) and low (10.5% and 15.8%). Further in aspects like: motivation and reporting, 52.6 and 47.4 per cent each number of trainers had high followed by medium level of perception.

Whereas, in case of supporting activities, 47.4 per cent respondents from all the KVKs had high...
Table 1. Background profile of trainers of KVKs

| Independent variables | Western zone | Eastern zone | Grand total |
|-----------------------|--------------|--------------|-------------|
|                       | Bhiwani n=4  | Fatehabad n=6 | Rohtak n=5 | Jhajjar n=4 | Grand total n=19 |
| Age (year)            |              |              |             |              |                 |
| 30-40                 | 2 (50.0)    | 1 (16.6)    | 1 (20.0)   | -           | 4 (21.0)        |
| 41-50                 | 1 (25.0)    | 5 (83.3)    | 3 (60.0)   | 1 (25.0)   | 10 (52.6)       |
| 51-60                 | 1 (25.0)    | -            | 1 (20.0)   | 3 (75.0)   | 5 (26.4)        |
| Caste                 |              |              |             |              |                 |
| SC                    | -            | -            | 1 (20.0)   | -           | 1 (5.3)         |
| Other backward caste  | -            | 1 (16.7)    | -           | -           | 1 (5.3)         |
| General               | 4 (100.0)   | 5 (83.3)    | 4 (80.0)   | 4 (100)    | 17 (89.4)       |
| Qualification         |              |              |             |              |                 |
| Ph.D.                 | 4 (100.0)   | 6 (100.0)   | 5 (100.0)  | 4 (100.0)  | 19 (100.0)      |
| Experience (Year)     |              |              |             |              |                 |
| >5 years              | 1 (25.0)    | 1 (16.7)    | 3 (60.0)   | -           | 5 (26.3)        |
| 5 to 10 years         | 1 (25.0)    | -            | -           | -           | 1 (5.3)         |
| <10 years             | 2 (50.0)    | 5 (83.3)    | 2 (40.0)   | 4 (100)    | 13 (68.4)       |
| Communication skills  |              |              |             |              |                 |
| Communication ability | Low          | Medium       | High        | Low         | Medium         |
| Low                   | 1 (25.0)    | 2 (50.0)    | 1 (25.0)   | 1 (25.0)   | 4 (21.1)        |
| Medium                | 1 (16.7)    | 3 (50.0)    | 1 (20.0)   | 1 (25.0)   | 10 (52.6)       |
| High                  | 2 (33.3)    | 3 (60.0)    | 1 (20.0)   | 2 (50.0)   | 11 (57.9)       |
| Communication quality | Low          | Medium       | High        | Low         | Medium         |
| Low                   | 1 (25.0)    | 1 (16.7)    | 1 (20.0)   | 1 (25.0)   | 3 (15.8)        |
| Medium                | 1 (25.0)    | 2 (33.3)    | 1 (20.0)   | 1 (25.0)   | 5 (26.3)        |
| High                  | 2 (50.0)    | 4 (66.7)    | 3 (60.0)   | 2 (50.0)   | 11 (57.9)       |
| Overall communication skill | Low | Medium | High |
| Low                   | 1 (25.0)    | 1 (16.7)    | 1 (25.0)   | 5 (26.3)   |
| Medium                | 1 (25.0)    | 2 (33.3)    |         1 (25.0) | 4 (21.1)   |
| High                  | 2 (50.0)    | 3 (50.0)    | 3 (60.0)   | 2 (50.0)   | 10 (52.6)       |

Figures in parentheses indicate percentages

Fig. 1. Overall role perceptions of trainers
Table 2. Role perception of trainers about different aspects of training

| Aspects                | Western zone | Eastern zone |
|------------------------|--------------|--------------|
|                        | Bhiwani n =4 | Fatehabad n =6 | Rohtak n =5 | Jhajjar n =4 | Grand total=19 |
| **Planning**           |              |              |              |              |                |
| Low                    | -            | -            | 1 (20.0)    | -            | 1 (5.3)        |
| Medium                 | 2 (50.0)     | 2 (33.3)     | 1 (20.0)    | 2 (50.0)     | 7 (36.8)       |
| High                   | 2 (50.0)     | 4 (66.7)     | 3 (60.0)    | 2 (50.0)     | 11 (57.9)      |
| **Organizing**         |              |              |              |              |                |
| Low                    | -            | 1 (16.7)     | 1 (20.0)    | -            | 2 (10.5)       |
| Medium                 | 2 (50.0)     | 2 (33.3)     | 2 (40.0)    | 3 (75.0)     | 9 (47.3)       |
| High                   | 2 (50.0)     | 3 (50.0)     | 2 (40.0)    | 1 (25.0)     | 8 (42.1)       |
| **Motivation**         |              |              |              |              |                |
| Low                    | -            | -            | -            | -            |                |
| Medium                 | 1 (25.0)     | 3 (50.0)     | 3 (60.0)    | 2 (50.0)     | 9 (47.4)       |
| High                   | 3 (75.0)     | 3 (50.0)     | 2 (40.0)    | 2 (50.0)     | 10 (52.6)      |
| **Training**           |              |              |              |              |                |
| Low                    | 1 (25.0)     | 1 (16.7)     | 1 (20.0)    | -            | 3 (15.8)       |
| Medium                 | 2 (50.0)     | 3 (50.0)     | 2 (40.0)    | 2 (50.0)     | 9 (47.4)       |
| High                   | 1 (25.0)     | 2 (33.3)     | 2 (40.0)    | 2 (50.0)     | 7 (36.8)       |
| **Reporting**          |              |              |              |              |                |
| Low                    | -            | -            | -            | -            |                |
| Medium                 | 2 (50.0)     | 2 (33.3)     | 3 (60.0)    | 2 (50.0)     | 9 (47.4)       |
| High                   | 2 (50.0)     | 4 (66.7)     | 2 (40.0)    | 2 (50.0)     | 10 (52.6)      |
| **Evaluation**         |              |              |              |              |                |
| Low                    | -            | -            | 1 (20.0)    | -            | 1 (5.3)        |
| Medium                 | 2 (50.0)     | 3 (50.0)     | 1 (20.0)    | 1 (25.0)     | 7 (36.8)       |
| High                   | 2 (50.0)     | 3 (50.0)     | 3 (60.0)    | 3 (75.0)     | 11 (57.9)      |
| **Supporting activities** |            |              |              |              |                |
| Low                    | -            | 1 (16.7)     | 1 (20.0)    | -            | 2 (10.5)       |
| Medium                 | 3 (75.0)     | 2 (33.3)     | 2 (40.0)    | 1 (25.0)     | 8 (42.1)       |
| High                   | 1 (25.0)     | 3 (50.0)     | 2 (40.0)    | 3 (75.0)     | 9 (47.4)       |

Figures in parentheses indicate percentages

followed by medium (42.1%) level and remaining 10.5 per cent trainers observed in low perception categories.

3.2.2 Overall role perception of trainers

The overall role perceptions of trainers to in different aspects of training were also worked out and result presented in Fig.1.

It is obvious from data that 47.4 per cent of trainers had followed by medium (36.8%) and low (15.8%) level of perception about their roles related to seven aspects viz; planning, organizing, motivation, training, reporting, evaluation and supporting activities.

3.3 Role Performance of Trainers

Professional activities trainers perform in KVKs were studied under role performance. Role performance was also assessed under seven aspects viz; planning, organizing, motivation, training, reporting, evaluation and supporting activities.

The data in Table 3 clearly revealed that trainers in training aspects like: planning, organizing, motivation, training (47.4% each) reporting (42.1%), evaluation (52.6%) and supporting activities (63.1%) had medium role performance 36.1%. Further exploration of results indicated low role performance by 1 (5.3%). It was followed by high level of role performance in case of planning, motivation, evaluation (36.8% each), organizing, training, reporting (42.1% each) and supporting activities 5.8 per cent (planning, motivation and reporting activities) 10.5 per cent (organizing, training, evaluation)
and 5.3 per cent respondents (supporting activities).

3.4 Overall Role Performances of Trainers

Regarding overall role performance of the trainers, a cursory look at the data presented in Table 4 highlighted that more than half of the respondents irrespective of zones and KVKs had medium (52.6%) allowed by high (36.8%) and low (10.5%) level of role performance related to planning, organizing, motivation, training, reporting, evaluation and supporting activities aspects.

### Table 3. Role performance of trainers about different aspects of training

| Aspects          | Category | Western zone | Eastern zone |
|------------------|----------|--------------|--------------|
|                  | Krishi Vigyan Kendras | Bhiwani (n=4) | Fatehabad (n=6) | Rohtak (n=5) | Jhajjar (n=4) | Grand total (n=19) |
| Planning         | Low      | 1 (25.0)     | 1 (16.7)     | 1 (20.0)     | -            | 3 (15.8)         |
|                  | Medium   | 2 (50.0)     | 2 (33.3)     | 2 (40.0)     | 3 (75.0)     | 9 (47.4)         |
|                  | High     | 1 (25.0)     | 3 (50.0)     | 2 (40.0)     | 1 (25.0)     | 7 (36.8)         |
| Organizing       | Low      | -            | 1 (16.7)     | 1 (20.0)     | -            | 2 (10.5)         |
|                  | Medium   | 2 (50.0)     | 3 (50.0)     | 2 (40.0)     | 2 (50.0)     | 9 (47.4)         |
|                  | High     | 2 (50.0)     | 2 (33.3)     | 2 (40.0)     | 2 (50.0)     | 8 (42.1)         |
| Motivation       | Low      | -            | 1 (16.7)     | 1 (20.0)     | 1 (25.0)     | 3 (15.8)         |
|                  | Medium   | 2 (50.0)     | 3 (50.0)     | 2 (40.0)     | 1 (25.0)     | 9 (47.4)         |
|                  | High     | 2 (50.0)     | 2 (33.3)     | 2 (40.0)     | 2 (50.0)     | 7 (36.8)         |
| Training         | Low      | 1 (25.0)     | 1 (16.7)     | -            | -            | 2 (10.5)         |
|                  | Medium   | 2 (50.0)     | 2 (33.3)     | 3 (60.0)     | 2 (50.0)     | 9 (47.4)         |
|                  | High     | 1 (25.0)     | 3 (50.0)     | 2 (40.0)     | 2 (50.0)     | 8 (42.1)         |
| Reporting        | Low      | 1 (25.0)     | 1 (16.7)     | 1 (20.0)     | -            | 3 (15.8)         |
|                  | Medium   | 2 (50.0)     | 2 (33.3)     | 2 (40.0)     | 2 (50.0)     | 8 (42.1)         |
|                  | High     | 1 (25.0)     | 3 (50.0)     | 2 (40.0)     | 2 (50.0)     | 8 (42.1)         |
| Evaluation       | Low      | 1 (25.0)     | 1 (16.7)     | -            | -            | 2 (10.5)         |
|                  | Medium   | 2 (50.0)     | 3 (50.0)     | 3 (60.0)     | 2 (50.0)     | 10 (52.6)        |
|                  | High     | 1 (25.0)     | 2 (33.3)     | 2 (40.0)     | 2 (50.0)     | 7 (36.8)         |
| Supporting activities | Low | -            | -            | 1 (20.0)     | -            | 1 (5.3)          |
|                  | Medium   | 2 (50.0)     | 4 (66.7)     | 3 (60.0)     | 3 (75.0)     | 12 (63.1)        |
|                  | High     | 2 (50.0)     | 2 (33.3)     | 1 (20.0)     | 1 (25.0)     | 6 (31.6)         |

*Figures in parentheses indicate percentages*

### Table 4. Overall role performance of trainers

| Role performance | Category | Western zone | Eastern zone |
|------------------|----------|--------------|--------------|
|                  | Krishi Vigyan Kendras | Bhiwani (n=4) | Fatehabad (n=6) | Rohtak (n=5) | Jhajjar (n=4) | Grand total (n=19) |
| Low              | -        | 1 (25.0)     | 1 (16.7)     | -            | -            | 2 (10.6)         |
| Medium           | -        | 2 (50.0)     | 3 (50.0)     | 3 (60.0)     | 2 (50.0)     | 10 (52.6)        |
| High             | -        | 1 (25.0)     | 2 (33.3)     | 2 (40.0)     | 2 (50.0)     | 7 (36.8)         |
Table 5. Constraints as experienced by the trainers

| Sr. No. | Western zone | Krishi Vigyan Kendras | Eastern zone | Total |
|---------|--------------|-----------------------|--------------|-------|
|         | **Constraints** | Bhiwani n =4 | Rank | Fatehabad n =6 | Rank | Rohtak n =5 | Ranking | Jhajjar n =4 | Rank | Total n =19 | Rank |
| 1.      | Funds by ICAR are not released timely | 3 (75.0) | II | 5 (83.3) | II | 4 (80) | II | 3 (75.0) | II | 15 (78.9) | III |
| 2.      | Non availability of vehicles for field visits | 2 (50.0) | III | 3 (50.0) | III | 3 (60.0) | III | 1 (25.0) | III | 9 (47.4) | V  |
| 3.      | Excessive burden of work and responsibilities due to no. of vacant posts lying in KVKs | 4 (100.0) | I | 5 (83.3) | II | 5 (100.0) | I | 4 (100.0) | I | 18 (94.7) | I  |
| 4.      | Lack of coordination with other agencies engaged in rural development work | 1 (25.0) | IV | 2 (33.3) | IV | 1 (20.0) | IV | 1 (25.0) | III | 5 (26.3) | VI |
| 5.      | Lack of internet facilities | 2 (50.0) | III | 3 (50.0) | III | 3 (60.0) | III | 2 (50.0) | II | 10 (52.6) | IV |
| 6.      | Excessive paper work and reporting | 4 (100.0) | I | 6 (100.0) | I | 4 (80.0) | II | 3 (75.0) | I | 17 (89.5) | II |

*Multiple responses

*Figures in parentheses indicate percentages*
3.4.1 Constraints experienced by trainers

Major constraints experienced by the trainers were: A lot of paper work and reporting and excessive burden of work and responsibilities due to number of post laying vacant in the KVKs. Similar results were shared [1]. [8] Observed that non availability of founds- Too small or Too Big trainees groups, (punctuality of training aids, lack of interest among trainees and lack of help from technical staff were major constraints faced by the trainers. While [2] reported that lack of coordination with other agencies adequate demonstration facilities and lack of relevant literature were constraints faces by trainees.

4. CONCLUSION

- As regards profile of the trainers, majority of the respondents were 41-50 years of age from general caste, with Ph.D. and more than 10 years of service experience with high communication skills.
- More than half of the respondents had high role perception about various aspects of training like planning and evaluation, motivation and reporting.
- Overall 47.4 per cent trainers had high followed medium role perception. Regarding role performance, more than half of the respondents irrespective of zones and KVKs had medium followed by high level of role performance.
- As numbers of posts are lying vacant in each selected KVKs which in turn increased the work load of extension personnel, thus there is need for human resource strengthening on priority basis by the authorities.

5. RECOMMENDATIONS

- Overall effectiveness of training programmes of KVKs rated by male and female beneficiaries was medium followed by high.
- To increase the overall effectiveness of training programmes certain step are required on the part of extension personnel like: during training complete information regarding e-marketing, helping farmers to sell their products online, prior information about the visit their visit in the field of farmers. Identification and training young educated local leaders for further communication of information follow up visit to solve the constraints in adoption of technology and proper guidance in getting loan and subsidies.
- Overall per cent of trainers had high followed medium role perception. Regarding role performance, more than half of the respondents irrespective of zones and KVKs had medium followed by high level of role performance.

CONSENT

As per international standard or university standard, respondents’ written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Chauhan NM, Chauhan NB. Constraints faced and suggestions offered by the programmes coordinators of KVKs' in India.Agric.Update. 2012;7(1&2):14-18.
2. Gopal S, Ramchand Sankhala G, Chand R. Constraints perceived by tribal dairy farming and organiser in training programmes, J. of Dairying, Foods and Home Sciences. 1999;17(1):49-53.
3. Kumar R, Kaur A. Charge transport mechanism of hydrazine hydrate reduced graphene oxide. IET Circuits, Devices & Systems. 2015;9(6):392-396.
4. Kumar K, Hundal DS, Dhillon DS, Kaur P. Constraints faced by Agricultural Development Officers in transfer of technology to the farmers of Punjab. Ind. J. Soc. Res. 2002;49:395-400.
5. Pandey SN. Analytical study of training programmes of Krishi Vigyan Kendra. Ph.D. Thesis, CCS Haryana Agricultural University, Hisar; 1998.
6. Pant K, Singh U. Need for Revamped Extension Approaches to Overcome the Constraints in Transfer of
7. Singh RK, Kumar H. On Farm Evaluation of Front Line Demonstrations on Mustard in Eastern Plane Zone of Uttar Pradesh. Ind. J. Ext. Edu. 2012;48(3&4):115-117.

8. Yadav B, Verma T. Assessing trainers view about various aspects of training. Maharashtra Journal of Extension Education. 1998;17:248-255.

© 2020 Sulekha et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here: http://www.sdiarticle4.com/review-history/57763