

INFORMATION OUTPUT BEHAVIOUR OF HOME SCIENTISTS FOR DISSEMINATION OF SCIENTIFIC INFORMATION IN EXTENSION

Kanwaljit Kaur*, Varinder Randhawa** and Sukhdeep Kaur Mann***

ABSTRACT

The study was conducted to analyze the information output behaviour of Home Scientists. The data were collected from 155 Home Scientists of Home Science colleges of five State Agricultural Universities of Northern India. Information output behaviour of Home scientists was measured according to their publications & participation in various extension activities during last three years. The scoring procedure was adopted for calculating the information output behaviour. Findings reveal that only negligible percentage of Home Scientist had higher information out put behaviour. There is no significant difference in Information out behaviour among the Home scientists of selected State Agricultural Universities. Personal and job related variables had no significant correlation with information output behaviour whereas major job responsibility of Home Scientists had significant association with it. Highest percentage of Home Scientists disseminated scientific information by publishing the popular articles and leaflets /pamphlets and by delivering the lectures and demonstrations. Very few Home Scientists prepared the modules, booklets and delivered the radio and TV talks for dissemination of information. Modules being self learning material require special skills for its preparation. So appropriate training should be organized by concerned authorities to impart this special skill among the Home Scientists. It is also suggested that special attention should be paid by the planners at the University level as well as the media to involve the Home Scientists extensively while chalking out the TV and the radio programmes because they are strong media of mass communication for dissemination of scientific information.

INTRODUCTION

Home Science colleges in the State Agricultural Universities are playing a vital role by generation of new scientific information & technologies in different areas of Home Science. For transfer of scientific information & technologies related to Home Science, the information transfer system i.e. extension system should be very effective otherwise technologies will remain in the files of Research Scientist without making the expected impact. No technology has any inherent value unless it is put to use for which it is created. There is need to work out methodologies for dissemination of scientific information. In this context a study was conducted to analyze the information output behaviour of Home Scientists

with following objectives:

1. To study the information output behaviour of Home Scientists in extension.
2. To find out the relationship between personal and job related variables of Home Scientists with their information output behavior in extension.
3. To compare information output behaviour of Home Scientists of selected State Agricultural Universities of Northern India.

RESEARCH METHODOLOGY

A total of 155 Home Scientists from five Home Science colleges of different State Agricultural Universities of Northern India were selected for

* Associate Professor, Dept. of H.Sc. Ext. & Communication Management, PAU, Ludhiana.

** Professor & Head, Dept. of H.Sc. Ext. & Communication Management, PAU, Ludhiana.

*** Teaching Assistant, Dept. of H.Sc. Ext. & Communication Management, PAU, Ludhiana.

the study.

Operationalization of Concept:

Information output Behaviour (IOB): It was operationalized as all activities performed by Home Scientists to disseminate scientific information for extension work.

Information output behaviour of the respondents was measured according to their participation in various extension activities and their publications during last three years for dissemination of scientific information to rural women & field functionaries. The following scoring procedure was adopted for calculating the IOB in extension.

(i) Participation in Extension Activities	Assigned Scores	
a) Attended query		0.50
b) Arranged exhibition		1.00
c) Screened Film show		1.00
d) Demonstration		1.00
e) Delivered lecture		1.00
f) Radio talk		2.00
g) TV talk		2.00
(ii) Extension Publications	Assigned Scores	
	Independent Authorship	Co-Authorship
a) Extension article	1.00	0.50
b) Leaflets/Pamphlet	2.00	1.00
c) Book chapter	2.00	1.00
d) Booklet/Module	3.00	1.50

The total IOB score for extension was worked out by summing up the scores obtained through participation in extension activities and their extension publications during last three years. The low, medium and high level of total scores of IOB in extension were worked out by cumulative cube root method. The score range for these levels was as follows:

Level of IOB in Extension	Assigned Score Range
Low	1.0-32.5
Medium	32.5-85.5
High	85.5-793.5

The data were collected from the selected Home Scientists with the help of questionnaire.

RESULTS AND DISCUSSION

The study findings are presented in three parts:

1. Information output behaviour in extension.
2. Relationship of personal and job related variables of the Home Scientists with their information out behaviour in Extension.
3. Comparison of information output behaviour of Home Scientists in selected state Universities

1. Information output behaviour in Extension

1.1 Level of Information output behaviour

It is evident from Table 1 that 58 and 40 per cent of the Home Scientists had low and medium level of information output behaviour respectively. Whereas only one per cent of the respondents fall in the high level category of output behaviour.

Table 1. Distribution of the respondents according to their level of information output behaviour

(n=155)	
Level of IOB in Extension	f %
Low(1.0-32.5)	90(58.06)
Medium(32.5-85.5)	63(40.64)
High(85.5-93.5)	2(1.29)

1.2) Extension Publication

Table 2 contains information with respect to the number and type of extension publications along with the nature of authorship. It was seen from the table that majority of the respondents transferred the information to their clients i.e. farm women and field functionaries by way of writing popular articles and preparing leaflets. However, a low percentage of the respondents prepared modules for the same. The findings of the study are in line with by Sridhar (1977), Rameshbabu and Sinha (1985), Patil et al (1987), Varma (1987) and Srivastava (1998). They reported that extension workers disseminated the information by preparing leaflets.

As far as popular articles were concerned

about 53 per cent of the respondents reported that they wrote their articles independently while leaflets and pamphlets were prepared jointly by about 50 per cent of the respondents. A careful study of the data further indicates that maximum percentage of the respondents wrote 1-5 popular articles/leaflets/booklets and thus disseminated the information through popular articles.

1.3) Participation in extension activities

The participation in extension activities for the present investigation was studied by summing the number of lectures delivered, demonstrations given, exhibitions arranged, film shows organized, the number of queries attended and number of radio/TV talks given by the selected respondents during last three years. The information in this respect has been given in Table 3 and Table 4. The approach followed by the respondents to disseminate the

scientific information to the farmwomen and field functionaries was mainly by delivering the lectures and giving demonstrations. The percentage in this respect was 81.29 and 49.03 respectively for lectures, 78.71 and 43.22 respectively for the demonstrations (Table 3). The finding goes to corroborate with results of Reddy (1976), Patil et al (1987), Varma (1987), Shinde (1997) and Srivastava (1998) who reported that extension personnel disseminated the information by conducting demonstration and group discussion. The Table further shows that exhibitions were mainly organized by the respondents to disseminate the scientific information to the farmwomen as compared to field functionaries. The possible reason could be that the rural women possessed usually low level of literacy and thus exhibition was considered the right method of disseminating the information.

Table 2. Distribution of the respondents according to their extension publications

(n=155)

Range	Popular articles		Leaflets/Pamphlets		Booklets		Modules	
	Independent authorship	Co-authorship	Independent authorship	Co-authorship	Independent authorship	Co-authorship	Independent authorship	Co-authorship
	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)
1-5	52 (33.55)	45 (29.03)	24 (15.48)	36 (23.22)	23 (14.84)	29 (18.71)	13 (8.39)	05 (3.22)
5-11	20 (12.90)	24 (15.48)	11 (7.10)	33 (21.29)	05 (3.22)	05 (3.22)	01 (0.64)	-
12-17	05 (3.22)	08 (5.16)	03 (1.93)	08 (5.16)	-	01 (0.64)	-	-
18-23	03 (1.92)	-	-	-	-	-	-	-
Above 23	02 (1.29)	-	-	-	-	-	-	-
Total	82 (52.90)	77 (49.68)	38 (24.52)	77 (49.68)	28 (18.06)	35 (22.58)	14 (9.03)	5 (3.22)

* Multiple response

A look at the data in Table 4 points out that radio talks were given by 53.35 per cent of the respondents to disseminate the scientific information to their clients as compared to 29.58 per cent of the respondents who took the help of TV to convey their message. A small percentage of the respondents below 6.45 per cent revealed that they had given 5-9 TV/radio talks during the last three years.

2 Relationship of personal and job related variables of the Home Scientists with their information output behaviour in Extension.

Table 5 indicates that information output behaviour of the respondents in extension had no significant correlation with personal and job related variables.

The observations of Shete (1974), Varma (1987) and Srivastava (1998) contradicted the

present findings who reported that the age had positive and significant relationship with information output behaviour of extension personnel whereas in this context Pandey and Mishra (1984), Bhople

(1985) and Shinde (1997) found that age of the extension personnel was negatively and significantly related to their information output behaviour.

Table 3. Distribution of the respondents according to their participation in extension activities

Range	(n=155)									
	Lectures delivered		Demonstration(s) given		Exhibition(s) arranged		Film/video/slide show arranged		Attended queries	
	For farm-women/youth f (%)	For field functionaries/extension workers f (%)	For farm-women/youth f (%)	For field functionaries/extension workers f (%)	For farm-women/youth f (%)	For field functionaries/extension workers f (%)	For farm-women/youth f (%)	For field functionaries/extension workers f (%)	For farm-women/youth f (%)	For field functionaries/extension workers f (%)
1 – 5	61 (39.35)	48 (30.97)	57 (36.77)	39 (25.16)	70 (45.16)	39 (25.16)	15 (9.68)	07 (4.52)	29 (18.71)	18 (11.61)
6 – 11	33 (21.29)	13 (8.39)	31 (20.00)	16 (10.32)	34 (21.93)	11 (7.10)	02 (1.29)	01 (0.64)	16 (10.32)	03 (1.93)
12 – 17	05 (3.22)	06 (3.87)	10 (6.45)	02 (1.29)	04 (2.58)	03 (1.93)	-	-	-	-
18 – 23	10 (6.45)	04 (2.58)	04 (2.58)	03 (1.93)	03 (1.93)	02 (1.29)	-	-	04 (2.58)	01 (0.64)
Above 23	17 (10.97)	05 (3.22)	20 (12.90)	07 (4.52)	01 (0.64)	-	-	-	09 (5.81)	01 (0.64)
Total	126 (81.29)	76 (49.03)	122 (78.71)	67 (43.22)	112 (72.26)	55 (35.48)	17 (10.97)	08 (5.16)	58 (37.42)	23 (14.84)

*Multiple response

Table 4. Distribution of the respondents according to their participation in radio and television programmes

Range	(n=155)	
	T.V. Talks f (%)	Radio Talks f (%)
1 – 4	43 (27.74)	70 (45.16)
5 - 9	03 (1.93)	10 (6.45)
Above 9	-	03 (1.93)
Total	46 (29.68)	83 (53.55)

The finding with respect to education of the respondents which had no relationship with their information output behaviour in extension was in line with study of Singh (1988) who also reported that education had no significant relationship with information output behaviour of extension personnel. The findings of the present study that experience that respondents had no relationship with their information output behaviour for extension were supported by the observations of Shete (1974) and Ganorkar and Shirke (1991).

The findings with respect to non-significant relationship between in-service training and information output behaviour in extension were in

line with the findings of Sanoria (1974) and Shinde (1997).

The findings with respect to relationship of job satisfaction with information output behaviour in extension were supported by Shete (1974) and Shinde (1997) who reported no relationship between these two variables. The present finding is contradicted by finding of Pandey and Mishra (1984), Ganorkar and Shirke (1991), Ambastha (1986) and Varma (1987).

The findings of Varma (1987) and Singh (1988) with respect to job commitment and information output behaviour of extension personnel were, however, at variance. They reported a positive and significant relationship of job commitment with information output behaviour of extension personnel.

Association of marital status and major job responsibility of the respondents with their information out behaviour: The data with respect to marital status and major job responsibility of the respondents were discrete in nature and thus were subjected to Chi-square test for the purpose of knowing their association with information out

behaviour in extension. Table 6 indicates that major job responsibility of the respondents was significantly (0.01%) associated with information output behaviour in extension.

Table 5. Relationship between personal and job related variables and information output behaviour of respondents in extension (n=155)

S.No.	Variables	Information output behaviour r
A. Personal variables:		
1.	Age	0.05
2.	Educational qualification	- 0.02
B. Job related variables:		
1.	Designation	- 0.10
2.	Experience	0.04
3.	Participation in seminars/conferences/ workshops/ symposia	0.05
4.	Number of Research projects completed	-
5.	In-service training	0.11
6.	Professional recognition/awards	0.05
7.	Job satisfaction	- 0.06
8.	Job commitment	- 0.05
9.	Communication facilities	0.04
10.	Information input	0.05
11.	Information processing behaviour	0.06

Table 6. Association of marital status and major job responsibility of the respondents with their information out behaviour in extension (n=155)

Variables	Information Output behaviour
Major job responsibility	15.97**
Marital status	0.362

** significant at 1% level

Table 7. Analysis of variance of information output behaviour of respondents in different selected State Agricultural Universities (n=155)

Name of SAU's	Information output behaviour in extension Mean score
Punjab Agricultural University, Ludhiana	97.23
CCSHAU, Hissar	64.65
MPUAT, Udaipur	32.67
GBPUAT, Pantnagar	34.36
CSKHPKV, Palampur	54.80
F-value	1.72

3. Comparison of information output behaviour of Home Scientist in selected state Universities

In case of IOB in extension, PAU, Ludhiana

had the highest mean score (97.23) followed by HAU, Hisar (64.64), and CSKHPKV, Palampur (54.80)

The data were further subjected to the critical difference techniques to test the difference of mean IOB scores of the respondents of the selected SAUs. The data revealed that there was no significant difference of mean IOB scores for extension.

CONCLUSION

- 1 Negligible percentage of Home Scientists had high Information Output Behaviour. So Home Scientists should be encouraged to publish & participate in extension activities to strengthen the extension system of State Agricultural Universities.
- 2 Majority of the Home Scientists disseminated scientific information by publishing the popular articles and leaflets /pamphlets and by delivering the lectures and demonstrations.
- 3 Few Home Scientists prepared the modules, booklets modules. Self learning material require special skills for its preparation. So appropriate training should be organized by concerned authorities to impart these special skills among the Home Scientists.
- 4 Although T.V. and Radio is a strong media of

mass communication for dissemination of information. Few T.V. and Radio talks were delivered by the Home Scientists. Thus it is suggested that special attention should be paid by the planners at SAUs as well as mass media to involve the Home Scientists extensively while chalking out the T.V. & Radio programme.

REFERENCES

- Ambastha, C.K. 1986. Communication patterns in Innovation Development, Extension and Client System: A System Approach, Delhi, B.R. Publishing Corporation.
- Bhople, R.S. 1985. Communication patterns in farm innovation extension, acceptance and adoption by the farmers in Maharashtra State, Ph.D. Dissertation (Unpublished), PAU, Ludhiana.
- Chafetz, J.S. 1978. A Primer on the Construction & Testing of Theories in Sociology, Itasca Illinois: F.E. Peacock Publishers, Inc.
- Chandra, A. 1994. Introduction to Home science, 2nd Revised Edition, New Delhi, Metropolitan Book Co. Pvt. Ltd.
- Chandrakandan, K. and Palaniswamy 2000. Advances in communication Technology, First Edition. Delhi, Indian Publishers Distributors.
- Channegowda, M.B. 1982. Interactions between researchers and farmers in Bangalore District of Karnataka, Unpublished Report, Dept. Agril. Ext., University Agric Sci, Bangalore.
- Ganorkar, P.L. and Shirke, R.A. 1991. Communication behaviour of extension personnel in a Tribal area. *Agric Ext Rev* 3 : 8-12.
- Pandey, S.N. and Mishra, R.N. 1984. Communication behaviour of subject Matter Specialists in the Training and Visit System. *Interaction* 2: 55-66.
- Patel, B.B. and Kher, A.O. and Suryavanshi, V.D. 1996. Communication patterns of Village Level Workers. *Gujarat J. Ext. Edu.* 7: 101-07.
- Rameshbabu, A. and Sinha, B.P. 1985. Communication behaviour of extension personnel with regard to modern rice technology. *Ind J Ext Edu*, 21: 11.
- Reddy, H.N.B. 1976. An analysis of patterns and procedures in communication of farm information by village level workers and factors associated with their communication behaviour, Ph.D. Dissertation (Unpublished), IARI, New Delhi.
- Sanoria, Y.C. 1974. An analysis of communication pattern in farm information development of dissemination systems in Madhya Pradesh, Ph.D. Dissertation (Unpublished), IARI, New Delhi.
- Shete, N.B. 1974. A study of communication behaviour of extension personnel of Maharashtra Agricultural Extension System, Ph.D. Dissertation (Unpublished), IARI, New Delhi.
- Shinde, P.S. 1997. Communication Patterns in Extension Education : A Study of T&V System in Karnataka, New Delhi, Rawat Publications..
- Singh, J. 1988. Communication pattern of Agricultural Extension Personnel, M.Sc. Thesis (Unpublished), CCSHAU, Hissar.
- Sridhar, G. 1977. An analysis of communication patterns of extension personnel and client system, M.Sc. Thesis (Unpublished), Univ Agric Sci, Bangalore.
- Srivastava, J.P., Rai, R. and Kumar, K. 1998. Communication behaviour of field extension personnel under T&V System. *Ind J Ext Edu*, 34: 133-37.
- Varma, U. 1987. An analysis of communication pattern among information generating, information disseminating and information utilizing systems of Home Science in Haryana, Ph.D. Dissertation (Unpublished), CCSHAU, Hissar.