EFFECTIVENESS OF AUDIO-VISUALS IN DISSEMINATING INFORMATION AS TESTIFIED BY THE EXTENSION WORKERS

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The Community Development Organisation in India realising the importance of audio-visual aids has supplied various audio-visuals to most of the Community Development Blocks for disseminating information to the farmers for adopting the improved agricultural practices. During the past many years these audio-visuals are being used in India's Community Development programme. While using different audio-visuals the extension personnel must have come accross the most effective audio-visuals, their limitations, the need for producing different audio-visuals and the additional training required in using them efficaciously. It was felt that it may be desirable to pool the experience gained so far by the extension personnel of Community Development Blocks to find out new avenues for working and research.

A nation-wide survey was, therefore, conducted with the extension personnel working in Community Development Blocks with the following objectives :

1. To find out the audio-visuals which are being extensively used by extension personnel of Community Development Blocks
2. To evaluate the comparative effectiveness of different audio-visuals in popularising improved practices.

Review of literature

Brooker (1941) while conducting a survey with a mail-questionnaire to find out the value and effectiveness of the films with industrial and educational users, found that 73 per cent of the industrial users thought that the films shortened the training time, while only 52 per cent of the educational users thought so. Cook and Borden (1947) indicated the percentage of usable films for primary, elementary, junior high school, senior high school, college and adult grades were 4.2, 20.5, 62.9, 86.4, 81.0 and 77.1 respectively. Dale, Finn and Hoban Jr. (1949) reviewed 27 status surveys based on the number and types of projectors available and the expenditure of funds for audio-visual equipment during 1940 to 1947. These surveys revealed a widespread growth in all phases of the audio-visual field and that scientific evaluation of the use of audio-visuals was insignificant due to paucity of research personnel. Hoban Jr. (1949) while enumerating the obstacles in the use of audio-visual materials, pointed out that many of the audio-visuals were expensive, difficult to obtain, equipment required manual skill for operation and technical skill for maintenance, some form of space modification was often necessary and the motion pictures were the most expensive of all.

Hayer (1956) carried out a survey of audio-

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visuals, and the results showed that 371 filmstrips were used for instruction, 63 for evengelism and 75 as entertainment. National project in Agricultural Communications and United States International Cooperation Administration (1959) reported that proper selection of visual aids required recognition of the fact that there was no one best tool in the visual kit. Each had appropriate application and each different conditions under which it should be used. However, they reported that (i) flannelgraphs were less expensive but required more imagination, (ii) chalk-boards not only increased the audience understanding but also speeded the learning, (iii) bulletin board was good for communicating the fewer ideas than confusing the audience by complicating the ideas ; (iv) when posters were overused, they turned the people against the idea that was to be accepted, (v) flash-cards helped the speaker in forcefully emphasizing the main points of his talk, (vi) flipbook made the learning easier, and they concluded that in considering the heavy educational impact on each individual due to field trips, it was found to be one of the most efficient and economic methods for teaching farmers. Dwarakinath (1960) felt that it was possible for the extension workers to learn a good deal by observation alone about the usefulness of the different extension methods in various situations.

Methodology

(a) *Area af study*

2280 Community Development and National Extension Service Blocks inaugurated up to March 1959 in India, formed the area of this study. As districts had varying number of Blocks, proportionate stratified random sampling method was adopted and sixty per cent of the then existing Blocks from each district were selected for the study. Thus 1382 Blocks were selected from all over India which formed the area of operation for this investigation.

(b) *Selection of respondents*

1382 agricultural extension officers and 1382 social education organizers operating in these selected Blocks formed the respondents as only these persons have been using audio-visuals in the Community Development programmes.

(c) *Devices used for collection af data*

A questionnaire including questions on the use of audio-visuals was prepared and copies of the same were mailed to agricultural extension officers and social education organizers during 1960-61. The questionnaires were followed up with reminders.

Findings

The information received from the 43 per cent of the respondents has been analysed and presented as under:

69.8 per cent of Agricultural extension officers and 63.7 per cent of social education organizers were graduates and 85 per cent of the extension personnel were young being below 35 years of age and had an experience of less than five years. Though over 80 per cent of extension personnel had rural background of more than 5 years, only 40 per cent had worked in rural areas for more than five years. Only three per cent of agricultural extension officers and 10.6 per cent of social education organizers had received special training in audio-visuals for a fortnight's duration.

Availability and extent of use of audio-visuals

The extent of usage of different audio-visuals was categorised as "most frequently used" "occasionally used" and "not-at-all used". The data reported by the agricultural extension officers and social education organizers under each are given in Table 1.

From the table, it is evident that over eighty per cent of blocks reported having ade-

TABLE 1

AVAILABILITY AND EXTENT OF USAGE OF DIFFERENT AUDIO-VISUALS BY EXTENSION PERSONNEL IN COMMUNITY DEVELOPMENT PROGRAMME

S. No.	Type of audio-visuals	Percentage of Agricultural Extension Officers				Percentage of Social Education Organizers			
		Availability /use	Most frequtly	Occasionally	Not-at-all	Availability /use	Most frequently	Occasionally	Not-at-all
1.	Method demonstration	94.6	51.2	16.8	32.0	82.3	13.8	19.6	66.6
2.	Result demonstration	93.8	48.4	20.6	31.0	82.7	15.0	14.8	70.2
3.	Books, Bulletins and other literature	96.1	35.8	24.1	40.1	96.7	35.7	18.8	45.5
4.	Charts and graphs	86.9	28.7	22.9	49.4	89.7	36.9	16.7	46.4
5.	Black-board	81.7	23.4	17.0	59.6	84.9	28.8	14.8	56.4
6.	Object, models, specimen and exhibits	74.0	19.8	23.4	56.8	75.6	16.3	20.2	63.5
7.	Bulletin-board, wall papers and posters	71.6	15.5	9.2	75.3	74.5	20.5	8.3	71.2
8.	Motion pictures	46.6	14.5	23.4	62.1	60.4	26.9	23.6	49.5
9.	Radio and recordings	63.4	13.2	14.2	72.6	73.0	23.6	12.3	64.9
10.	Information centre	83.0	12.9	14.0	73.1	90.8	20.7	13.8	65.5
11.	Photographs and pictures	77.6	8.1	19.8	72.1	89.7	16.3	19.6	64.1
12.	Field trips	67.0	6.3	22.8	70.9	71.3	4.0	21.9	74.1
13.	Maps and pictorial graphs	60.8	4.3	10.2	85.5	74.5	7.5	9.0	83.5
14.	Flash cards and flip books	32.0	3.6	6.9	89.5	43.5	8.1	9.6	82.3
15.	Slides and film strips	34.2	3.8	10.7	85.5	38.8	8.1	8.5	83.4
16.	Flannel graphs	21.9	3.8	6.6	89.6	29.8	6.5	9.6	83.9
17.	Dramatics	50.2	1.8	17.8	80.4	82.1	10.2	32.8	57.0
18.	Puppet shows	6.2	0.7	2.3	97.0	10.8	0.8	2.5	96.7
19.	Cut-outs and dioramas	4.9	0.0	0.3	99.7	10.2	0.4	0.4	99.2

N.B.—The data were from 1127 usable responses.

quate supply of books, bulletins, information literature, charts, graphs, photographs, flat pictures, museums and facilities to conduct method and result demonstrations.

About forty to eighty per cent of blocks were provided with flash cards, flip books, slides, film strips and flannelgraphs and about nine percent of blocks reported having facilities for puppet shows, cut-outs and dioramas.

The pooled results show that about 49 per cent of agricultural extension officers were using method and result demonstrations "most frequently" while about 25 per cent of social education organizers reported charts, graphs, books, bulletins and literature as being used "most frequently".

Thirty per cent of extension personnel reported exhibits, motion pictures and field trips as being used "occasionally" and about 90 per cent of extension personnel reported that visual aids were being not at all used.

The reasons advanced by extension personnel for using certain audio-visuals most frequently are presented in Table 2.

The "most frequent use" of method and result demonstrations by agricultural extension officers was because they were most effective and more farmers would gather; charts and literature were most frequently used by the social-education organizers as they were convenient to carry and easy to administer.

The reasons for using objects, models, exhibits, motion pictures and field trips only occasionally by extension personnel (Table 3) were "lack of facilities, difficulty in obtaining them when needed and their usefulness as recreational aids".

The reasons for not using the visual-aids were lack of facilities, difficulty in obtaining them and inadequate information. The other reasons were lack of interest, lack of encouragement, and illiterate public, unsuitability of aids to local conditions, transport difficulties and lack of preparatory time.

The relative effectiveness of audio-visuals in regard to a particular innovation as reported by the agricultural extension officers and social education organizers was analysed (Figure 1) and the following conclusions are drawn.

(i) The visual aids, movies, field trips and result demonstrations were most effective in popularising improved seed, Japanese method of paddy cultivation and use of fertilizers.

(ii) Information folders were most effective in popularising improved seeds and pest and disease control, while the method demonstration was most effective in popularising improved implements, line sowing, and Japanese method of paddy cultivation.

(iii) Flannelgraphs were found most effective in increasing the literacy of adults. They were also effective for welfare activities of women and children and in organising rural youth clubs.

Familiarity of extension personnel with the use of audio-visuals

The reports received from different extension personnel about their ability to handle and use various audio-visual aids effectively were summarised. It is concluded that none of the extension personnel reported cent per cent ability to use all audio-visuals effectively. Only forty to fifty per cent of agricultural extension officers were conducting method and result demonstrations effectively. One third of the social educational organizers could use charts, flannelgraphs, radio and recordings effectively. Agricultural extension officers seemed to be more efficient in use of audio-visuals as compared to social education organizers.

MOST EFFECTIVE COMBINATIONS OF AUDIO-VISUALS FOR INNOVATIONS

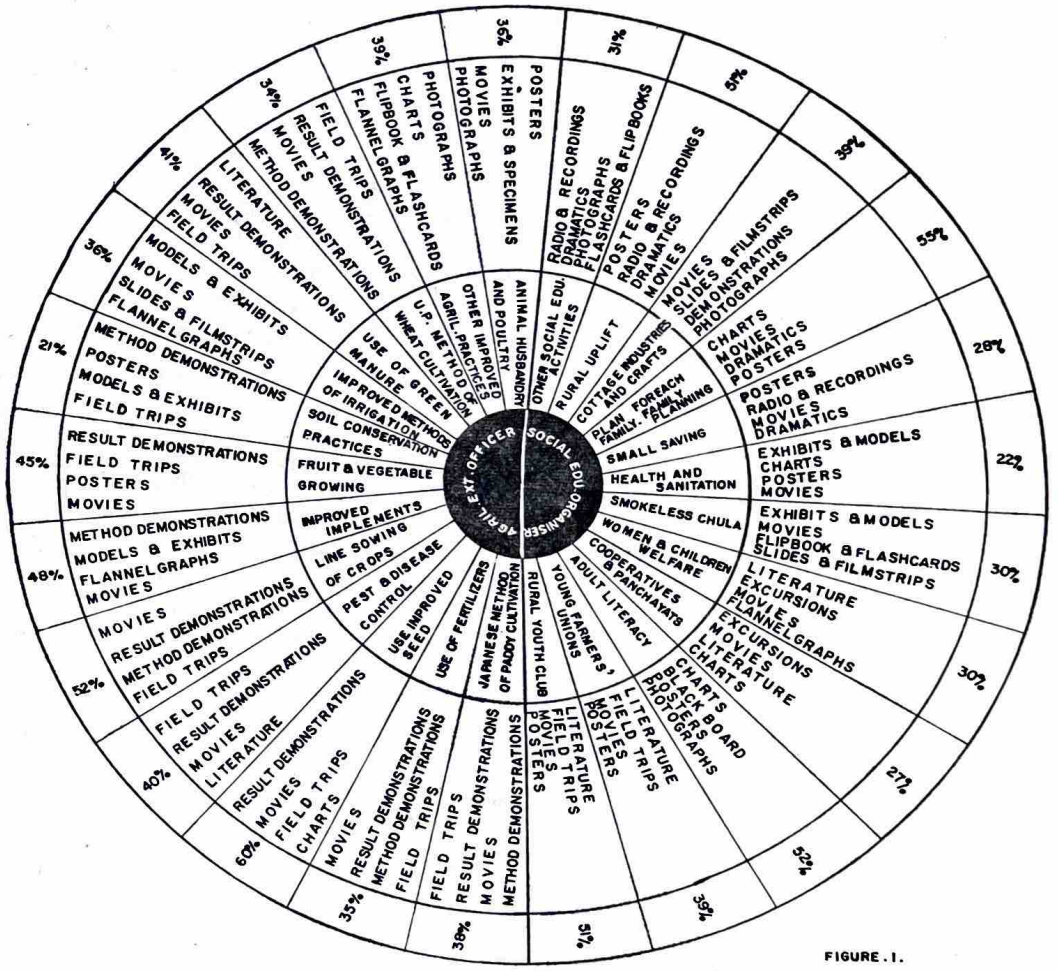

FIGURE. I.

N.B. NUMERICAL FIGURES IN OUTER CIRCLE REPRESENT HIGHEST PERCENTAGE OPINION FROM 1026 USABLE RESPONSES

TABLE 2

REASONS GIVEN BY EXTENSION PERSONNEL FOR USING DIFFERENT AUDIO-VISUALS 'MOST FREQUENTY' IN COMMUNITLY DEVELOPMENT PROGRAMME

S. No.	Type of audio-visual	Percentage of Agricultural Extension Officers					Percentage of Social Education Organizers				
		Cheapest in disseminating information	Most effective	Easy to administer	Convenient to carry	More farmers will gather	Cheapest in disseminating information	Most effective	Easy to administer	Convenient to carry	More farmers will gather
1.	Method demonstration	28.7	42.9	29.1	13.9	35.7	7.2	12.5	9.4	5.7	8.4
2.	Result demonstration	19.5	48.7	25.1	9.1	30.6	7.8	14.2	9.8	4.1	9.6
3.	Books, bulletins and other literature	23.1	13.8	21.4	27.3	6.3	21.9	16.0	22.1	25.6	9.8
4.	Charts and graphs	20.2	17.6	21/1	25.6	9.7	28.9	19.5	26.5	32.2	12.5
5.	Objects, models, specimen and exhibits	10.3	15.0	13.2	9.2	12.4	8.0	13.1	12.3	8.4	9.8
6.	Posters and wall papers	12.2	7.3	13.2	12.5	6.3	14.6	9.8	14.4	15.6	ɔ.3
7.	Motion pictures	5.6	14.3	7.1	4.0	14.8	5.7	23.8	12.1	7.6	29.5
8.	Radio and recordings	5.4	9.1	8.4	4.5	11.8	9.4	18.7	15.8	9.0	19.3

TABLE 3

REASONS GIVEN BY EXTENSION PERSONNEL FOR USING DIFFERENT AUDIO-VISUALS "OCCASIONALLY" AND "NOT AT ALL" IN COMMUNITY DEVELOPMENT PROGRAMME (% OF EXTENSION PERSONNEL REPORTED)

S. No.	Type of audio-visual	very expensive	Increased information desired	Lack of facilities	Villagers are not interested	Useful only as recreational aids	Least teaching value	Difficult to obtain	Lack of encouragement	Other reasons
1.	Field trips	17·2	4.3	14.1	2.8	8.1	0.9	—	13.1	1.3
2.	Motion pictures	25.0	10.0	26.5	2.2	13.3	3.7	20.9	5.2	2.6
3.	Objects, models, specimen and exhibits	14.4	5.3	11.7	3.2	4.8	3.9	9.3	3.3	1.3
4.	Recordings and Radio	13.1	5.9	13.3	4.6	11.5	4.6	11.5	2.8	1.7
5.	Slides and filmstrips	20.5	17.0	21.8	6.8	11.3	11.3	17.6	6.1	1.9
6.	Flash cards and flip-books	3.7	4.8	7.6	4.4	3.5	3.7	7.6	4.3	2.0
7.	Dramatics	14.6	6.7	12.0	2.4	14.6	3.0	6.9	6.3	2.0
8.	Flannelgraphs	6.3	8.9	12.8	7.8	4.6	4.4	8.1	6.3	3.0

Training requirements in audio-visuals as expressed by extension workers were analysed and found that three out of every four extension personnel wanted training in use of various audio-visuals for successfully carrying out the programmes. A heavy demand had been expressed for posters, motion pictures, slides, filmstrips, flannelgraphs and information literature on various agricultural subjects by the extension personnel.

Draw-backs and practical difficulties in use of audio-visuals in community development programme

The percentage of agricultural extension officers and social education organizers expressing the various difficulties on use of audio-visuals were almost similar in all cases (Table 4). The three major hurdles as expressed by over thirty per cent of extension personnel were (a) non-availability of materials and audio-visuals at the block level at the right time, (b) lack of training in preparation and use of different audio-visuals and (c) lack of transport.

Discussion

The majority of extension personnel working in Community Development Programme were young graduates with less than five years of experience and had sufficient rural background.

The recommendation of the Programme Evaluation Organisation, that frequent transfers of extension personnel be avoided, has not been followed. The Community Development Administration feels that the experience gained by the extension personnel might be of much help when starting the Community Development programme in a new area and this might be one of the reasons for frequent transfers of the extension personnel.

The extension personnel from all the Community Development and National Extension Service Blocks reported the availability of almost all audio-visuals except cut-outs and puppetshows. Method and result demonstrations were most frequently used by agricultural extension officers as these were found "most effective" and "more farmers would gather", while charts, graphs and literature were preferred "most frequently" by social education organizers as these were "convenient to carry" and "easy to administer." The social education organizers gave more importance to convenience of carriage and ease of administration, which may be due to the difference in subject matter. It also indicates a factor which cannot be easily laid aside when considering the production and supply of various audio-visual aids. Cut-outs, dioramas, puppet shows, flannelgraphs, dramatics, slides, filmstrips, flashcards and flip books were not used at all due to "lack of training in preparing and using these audio-visuals", "due to their non-availability at block level" and "lack of facilities to prepare and use." These findings were supported by Price (1933) who stated that printed charts and folders have a limited use, while objects and models were difficult to obtain.

When the effective combinations of audio-visuals for various improved agricultural practices were analysed, it was found that the combination of "field trips + movies + method and result demonstrations" was the best. It was found that the combination of "literature + movies + excursions + posters" was found the best in popularising social education activities. This is according to expectation. As a whole the combination of seeing, hearing and doing can increase knowledge and skill resulting in a change of attitude and behaviour which is favourable to adoption of agricultural practices.

In general agricultural extension officers seemed to be more efficient in the use of audio

TABLE 4

DRAWBACKS AND PRACTICAL DIFFICULTIES IN THE USE OF AUDIO-VISUALS IN COMMUNITY DEVELOPMENT PROGRAMME AS REPORTED BY EXTENSION PERSONNEL

S. No.	Nature of draw-back	Percentage of	
		Agri. Extn. Officers	Soc. Education Organisers
1.	Non-availability at block level at right time	47.0	42.1
2.	Lack of training in audio-visual aids	40.4	39.9
3.	Lack of transport	26.9	31.3
4.	Lack of audio-visuals in local language	16.0	9.9
5.	Lack of audio-visual equipment	15.6	16.2
6.	Villagers are not interested	15.6	7.2
7.	Lack of funds to prepare or use	14.7	14.5
8.	Lack of facilities in villages	12.8	13.1
9.	More file work and busy with other execution works	10.7	8.1
10.	Illiterate public	10.0	6.0
11.	Lack of trained technicians	9.0	8.1
12.	Very expensive to prepare and use	8.7	8.8
13.	Lack of enthusiasm among the superiors	7.7	6.1
14.	Gramsevaks are otherwise busy or non-cooperating staff	5.3	5.0
15.	Lack of good motorable roads	4.9	9.4
16.	No facilities for servicing or for repairs	4.1	2.4
17.	Difficult to carry by bi-cycle	3,0	2.0
18.	More time is required to prepare	2.8	5.0
19.	Red-tapeism of officials	2.6	0.4
20.	Lack of initiation to use	2.6	2.2
21.	Not successful to teach villagers	2.6	1.5
22.	Use of more technical words in audio-visuals	2.4	3.1
23.	Lack of audio-visuals in different subject-matter fields	3.4	3.7
24.	Only films and result demonstrotions are effective	2.1	0.9
25.	Lack of special staff to operate and to use different audio-visuals	2.1	6.6
26.	Other drawbacks	13.4	25.1

N.B.—The data were from 989 usable responses,

visuals as compared to social education organisers. This was in conformity with the findings of Harris (1953) who found that officers of agriculture ranked first while social studies officers ranked second in the use of various audio-visuals.

Most of the extension personnel expressed their inability in using the audio-visuals effectively due to lack of training, lack of knowledge in preparing them, lack of materials, lack of funds and lack of transport to carry the audio-visuals from one place to other. Similar obstacles which hinder the use of various audio-visuals were also enumerated by Hoban Jr. (1959)

Summary and Conclusion

A nation-wide survey was conducted with the extension personnel working in the Community Development blocks in India with an objective to find out the extent of usage of various audio-visual aids and their comparative effectiveness in popularising improved practices.

Sixty per cent of the Community Development blocks were selected on the basis of proportionate stratified random sampling method. 1382 agricultural extension officers and 1382 social education organizers working in these blocks formed the respondents. 43 per cent of respondents completed the questionnaires and returned them with their opinions. Analysis of the data from the 1138 usable responses from extension personnel indicated that 1) only three per cent of agricultural extension officers and ten per cent of social education organisers had received a fort-night's special training in audio-visuals.

2) Eighty per cent of the blocks reported their having adequate supply of information literature, photographs, charts and facilities to conduct method and result demonstrotions. About forty per cent of the blocks were provided with flashcards, flipbooks, slides, filmstrips and flannelgraphs.

3. About fortynine per cent of agricultural extension officers reported that they were using method and result demonstrations most frequently while thirtyfive per cent of social education organizers reported charts, graphs and information literature as being used most frequently.

4. About ninety per cent of extension personnel reported that visual aids were not at all used.

5. The reason for most frequent use of method and result demonstrations by agricultural extension officers was that they were most effective and more farmers would gather; while the reasons for most frequent use of charts and literature by the social education organisers were that they were convenient to carry and easy to administer.

6. The reasons for not using most of the visual aids were lack of facilities, difficulty in obtaining the desired aids and lack of training in the usage of various visuals.

7. Three out of every four extension personnel wanted training in use of various audio-visuals for popularizing the improved practices.

Most of the extension personnel reported the availability of audio-visuals but only demonstrations by the agricultural extension officers and charts, graphs and literature by the social education organizers were used most frequently. To popularise most of the improved agricultural practices, the combination of field trip, movie and result demonstration was the best. Three out of every four extension personnel wanted training in use audio-visuals.

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